



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/633,776	06/27/2017	Masahide Tanaka	N0692.70001US04

CONFIRMATION NO. 5281

23628

WOLF GREENFIELD & SACKS, P.C.
600 ATLANTIC AVENUE
BOSTON, MA 02210-2206

POA ACCEPTANCE LETTER



OC000000068105545

Date Mailed: 02/09/2024

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/30/2024.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/sleutchit/

POWER OF ATTORNEY REGARDING APPLICATIONS/PATENTS BEFORE THE
USPTO

GENERAL POWER OF ATTORNEY

I hereby revoke all previous powers of attorney given in the application(s)/patent(s) identified in the attached list and/or the attached statement under 37 CFR 3.73(c).

I hereby appoint Practitioners associated with the Customer Number:

23628

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent application(s)/patent(s) identified in the attached list and/or the attached statement under 37 CFR 3.73(c).

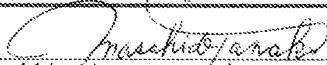
Please change the correspondence address for the application(s)/patent(s) identified in the attached list and/or the attached statement under 37 CFR 3.73(c) to:

The address associated with Customer Number: **23628**

Statements under 37 CFR 3.73(c) attached hereto may be completed by one of the practitioners appointed above if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

Assignee Name and Address:

NL Giken Incorporated
1-17-9, Ozone, Toyonaka-Shi
Osaka, Japan 561-0813

SIGNATURE of Assignee of Record		
The individual whose signature and title is supplied below is authorized to act on behalf of the assignee		
Signature		Date January 15, 2024
Name	MASAHIDE TANAKA	Telephone 481 6 6384 6204
Title	CHIEF EXECUTIVE OFFICER	

Schedule of Patents/Applications

WGS Ref. No.	Title	Cty	Appln No.	Filing Date	Patent No.	Issue Date
NO692.70000US00	MOVING IMAGE DATA DELIVERY SYSTEM, AN ADVERTISING IMAGE DATA DELIVERY SYSTEM, AND A MOVING IMAGE VIEWING APPARATUS	US	14/044,969	10/03/2013	9,197,939	11/24/2015
NO692.70001US00	DIGITAL CONTENTS RECEIVING APPARATUS	US	14/519,389	10/21/2014	9,210,484	12/08/2015
NO692.70001US02	DIGITAL CONTENTS RECEIVING APPARATUS	US	14/224,070	03/25/2014		
NO692.70001US03	DIGITAL CONTENTS RECEIVING APPARATUS	US	14/934,331	11/06/2015	9,762,964	09/12/2017
NO692.70001US04	DIGITAL CONTENTS RECEIVING APPARATUS	US	15/633,776	06/27/2017	9,948,968	04/17/2018
NO692.70001US05	DIGITAL CONTENTS RECEIVING APPARATUS	US	15/922,925	03/16/2018	10,880,592	12/29/2020
NO692.70001US06	DIGITAL CONTENTS RECEIVING APPARATUS	US	17/108,017	12/01/2020		
NO692.70001US07	DIGITAL CONTENTS RECEIVING APPARATUS	US	18/093,798	01/05/2023		
NO692.70002US02	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	14/145,935	01/01/2014	9,319,615	04/19/2016
NO692.70002US03	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	15/067,240	02/11/2016	10,028,024	07/17/2018
NO692.70002US04	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	15/635,266	06/28/2017	10,284,803	05/07/2019
NO692.70002US05	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	15/009,278	06/15/2018		
NO692.70002US06	TELEVISION SYSTEM, TELEVISION SET AND REMOTE CONTROLLER	US	17/107,917	11/30/2020		
NO692.70003US00	VEHICLE CAPABLE OF LOW NOISE RUNS	US	14/481,933	09/10/2014	9,352,688	05/31/2016
NO692.70004US00	DIGITAL CAMERA WITH COMMUNICATION FUNCTION	US	15/462,983	03/20/2017	10,592,547	03/17/2020
NO692.70005US00	RECEIVING APPARATUS CAPABLE OF RECEIVING DIGITAL CONTENTS AND COMMERCIAL MESSAGES	US	16/888,740	05/31/2020	11,218,782	01/04/2022

11973719.1

N0692.70007U500	DIGITAL IMAGE VIEWING SYSTEM, A CELLAR PHONE AND A DIGITAL PHOTO FRAME	US	15/362,659	03/24/2019	10,764,422	9/1/2020
N0692.70008U500	3D IMAGE CONTENTS VIEWING SYSTEM	US	15/257,251	01/25/2019	10,728,535	07/28/2020
N0692.70009U500	ELECTRONIC MUSIC BOX	US	15/633,866	06/27/2017	10,632,442	07/24/2018

11973719.1



UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
15/633,776

RECEIPT DATE / TIME
01/30/2024 12:56:45 PM Z ET

ATTORNEY DOCKET #
US8CA4

Title of Invention

DIGITAL CONTENTS RECEIVING APPARATUS

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
 under 35 USC 111(a)

PATENT # 9948968

CONFIRMATION # 5281

FILED BY Stacey Appleton

PATENT CENTER # 64138061

FILING DATE 06/27/2017

CUSTOMER # 67628

FIRST NAMED
INVENTOR Masahide Tanaka

CORRESPONDENCE
ADDRESS -

AUTHORIZED BY James Morris

Documents

TOTAL DOCUMENTS: 3

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
N069270001US04-TRN-JHM.pdf	1	Miscellaneous Incoming Letter	26 KB
N069270001US04-373-JHM.pdf	2	Assignee showing of ownership per 37 CFR 3.73	25 KB
N069270001US04-POA-JHM.pdf	3	Power of Attorney	4342 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
N069270001US04-TRN-JHM.pdf	A185A341E8BDF06CA74C6EA3C64FE93B14C1967C35DADA99 B7AF1F44A7CEA0FBCFA5DD1E929FC7A1CB40EA72D9076DD

F5C4ED89970B88809731699B05D525C52

N069270001US04-373-
JHM.pdfFB6C7A335217F4E7F58DC65E2BE772888C3488B65BC903FA0
961A924A55928D8D9A15EE57D647EF0DFC1A549ACFCDED08
B159646DE94D0930C904BCBA5E7B7FBN069270001US04-POA-
JHM.pdf520E544D30AD4191330FD538AA219495A5AB62A06EECE58E9
7A24870A013D49D1EC793B04E0CFFFAAAB4605F4B563DEA0
A806C01B66E1E1C52733D84E4395CF5

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	Patent#: 9,948,968
	Filing Date	Issued: April 17, 2018
	First Named Inventor	Masahide Tanaka
	Art Unit	2497
	Examiner Name	A. Shayanfar
Total Number of Pages in This Submission	Attorney Docket Number	N0692.70001US04

ENCLOSURES (Check all that apply)			
☐ Fee Transmittal Form ☐ Fee Attached ☐ Amendment/Reply ☐ After Final ☐ Affidavits/declaration(s) ☐ Extension of Time Request ☐ Express Abandonment Request ☐ Information Disclosure Statement ☐ Certified Copy of Priority Document(s) ☐ Reply to Missing Parts/ Incomplete Application ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53	☐ Drawing(s) ☐ Licensing-related Papers ☐ Petition ☐ Petition to Convert to a Provisional Application ☒ Power of Attorney, Revocation Change of Correspondence Address ☐ Terminal Disclaimer ☐ Request for Refund ☐ CD, Number of CD(s) _____ ☐ Landscape Table on CD	☐ After Allowance Communication to TC ☐ Appeal Communication to Board of Appeals and Interferences ☐ Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) ☐ Proprietary Information ☐ Status Letter ☒ Other Enclosure(s) (please Identify below): Statement under 37 CFR 3.73(c)	
<table border="1"><tr><td>Remarks</td></tr></table>			Remarks
Remarks			

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature	/James H. Morris/		
Printed name	James H. Morris		
Date	January 24, 2024	Reg. No.	34,681

Certificate of Electronic Filing under 37 C.F.R. § 1.8	
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office's electronic filing system in accordance with 37 C.F.R. § 1.6(a)(4).	
Dated: January 30, 2024	Signature: /Stacey L. Appleton/ (Stacey L. Appleton)

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: NL Giken Incorporated
Application No./Patent No.: 9,948,968 Filed/Issue Date: April 17, 2018
Titled: DIGITAL CONTENTS RECEIVING APPARATUS

NL Giken Incorporated, a Corporation
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☒ The assignee of the entire right, title, and interest.
2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):
- ☐ The extent (by percentage) of its ownership interest is _____ %. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
- ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 066050, Frame 0590, or for which a copy thereof is attached*.
- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached*.

2. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached*.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached*.

4. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached*.

5. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached*.

6. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached*.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☐ *As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

_____/James H. Morris/
Signature

Date January 24, 2024

Printed or Typed Name James H. Morris

Title or Registration Number 34,681



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/633,776	04/17/2018	9948968	US8CA4	5281

67628 7590 03/28/2018
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Masahide Tanaka, Osaka, JAPAN;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

"FEE ADDRESS" INDICATION FORM

Address to:
Mail Stop M Correspondence
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Fax to:
571-273-6500

- OR -

INSTRUCTIONS: The issue fee must have been paid for application(s) listed on this form. In addition, only an address represented by a Customer Number can be established as the fee address for maintenance fee purposes (hereafter, fee address). A fee address should be established when correspondence related to maintenance fees should be mailed to a different address than the correspondence address for the application. **When to check the first box below:** If you have a Customer Number to represent the fee address. **When to check the second box below:** If you have no Customer Number representing the desired fee address, in which case a completed Request for Customer Number (PTO/SB/125) must be attached to this form. For more information on Customer Numbers, see the Manual of Patent Examining Procedure (MPEP) § 403.

For the following listed application(s), please recognize as the "Fee Address" under the provisions of 37 CFR 1.363 the address associated with:

☒ Customer Number: 67628

OR

☐ The attached Request for Customer Number (PTO/SB/125) form.

PATENT NUMBER (if known)	APPLICATION NUMBER
	15/633,776

Completed by (check one):

☒ Applicant/Inventor /Masahide Tanaka/

Signature

☐ Attorney or Agent of record Masahide Tanaka

Typed or printed name
(Reg. No.)

☐ Assignee of record of the entire interest. See 37 CFR 3.71. +81 6 6334 6204

Requester's telephone number
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☐ Assignee recorded at Reel _____ Frame _____ March 11, 2018

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ * Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.363. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 5 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop M Correspondence, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal				
Application Number:		15633776		
Filing Date:		27-Jun-2017		
Title of Invention:		DIGITAL CONTENTS RECEIVING APPARATUS		
First Named Inventor/Applicant Name:		Masahide Tanaka		
Filer:		Masahide Tanaka		
Attorney Docket Number:		US8CA4		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	2501	1	480	480

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				480

Electronic Acknowledgement Receipt	
EFS ID:	32016332
Application Number:	15633776
International Application Number:	
Confirmation Number:	5281
Title of Invention:	DIGITAL CONTENTS RECEIVING APPARATUS
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US8CA4
Receipt Date:	11-MAR-2018
Filing Date:	27-JUN-2017
Time Stamp:	21:02:50
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$480
RAM confirmation Number	031218INTEFSW21062700
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	15633776ptol85b.pdf	73355	no	2
			1b94b0126fc8b89803ee3eb5d62dd78a13868582		
Warnings:					
Information:					
2	Change of Address	15633776sb0047.pdf	311414	no	2
			bd5761c0c60a94d78f396b270d8f3eb4c38617c1		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30047	no	2
			42b26ba42d5f67bbf3fe2225dd36fec39d5969ea		
Warnings:					
Information:					
Total Files Size (in bytes):			414816		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Masahide Tanaka
1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/633,776	06/27/2017	Masahide Tanaka	US8CA4	5281

TITLE OF INVENTION:

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$480	\$0	\$0	\$480	03/13/2018
EXAMINER	ART UNIT	CLASS-SUBCLASS				

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. ☒ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.	2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____ (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____ 3 _____
--	---

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

NL GIKEN INCORPORATED

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Osaka, JAPAN

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☒ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☒ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Masahide Tanaka/

Date March 11, 2018

Typed or printed name Masahide Tanaka

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

67628 7590 12/13/2017
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

EXAMINER

SHAYANFAR, ALI

ART UNIT

PAPER NUMBER

2497

DATE MAILED: 12/13/2017

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/633,776	06/27/2017	Masahide Tanaka	US8CA4	5281

TITLE OF INVENTION: DIGITAL CONTENTS RECEIVING APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$480	\$0	\$0	\$480	03/13/2018

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

67628 7590 12/13/2017
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/633,776	06/27/2017	Masahide Tanaka	US8CA4	5281

TITLE OF INVENTION: DIGITAL CONTENTS RECEIVING APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$480	\$0	\$0	\$480	03/13/2018

EXAMINER	ART UNIT	CLASS-SUBCLASS
SHAYANFAR, ALI	2497	725-051000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
- ☐ Applicant asserting small entity status. See 37 CFR 1.27
- ☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/633,776	06/27/2017	Masahide Tanaka	US8CA4	5281
67628 7590 12/13/2017 MASAHIDE TANAKA 1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN OSAKA, JAPAN			EXAMINER SHAYANFAR, ALI	
			ART UNIT	PAPER NUMBER
			2497	

DATE MAILED: 12/13/2017

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 15/633,776	Applicant(s) TANAKA, MASAHIRO	
	Examiner ALI SHAYANFAR	Art Unit 2497	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Response filed on 11/08/2017.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. ☒ The allowed claim(s) is/are 1-12. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) ☒ All b) ☐ Some *c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. ☒ Notice of References Cited (PTO-892) | 5. ☐ Examiner's Amendment/Comment |
| 2. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 6. ☒ Examiner's Statement of Reasons for Allowance |
| 3. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 7. ☐ Other _____. |
| 4. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____. | |

/ALI SHAYANFAR/
Primary Examiner, Art Unit 2497

DETAILED ACTION

1. The present application is being examined under the pre-AIA first to invent provisions.
2. As per Amendment filed on 11/08/2017, Claims 1, 5 and 9 have been amended.
3. Double patenting rejections to claims 1-2 is withdrawn in view of the approved terminal disclaimer filed on 11/08/2017.
4. Amendment filed on 11/08/2017 obviates the U.S.C 112 second rejection in the previous office action.

Examiner's Statement of reason for Allowance

5. Claims **1-12** are allowed in view of approved terminal disclaimer filed on 11/08/2017, and for the reasons presented below.

6. The following is an examiner's statement of reasons for allowance:

The present invention is related to an internet Television. A television set is capable of receiving both broadcast program from television station and corresponding digital file of the same contents from a server station through internet. The television set keeps information of time limit for the server station to surely provide the file. The television set automatically downloads the file when the time limit comes close or the time limit information is failed to be kept. The television set keeps URL for the moving image program enjoyed upon turning-off of the television set until the next turning-on for instantly enjoying the moving image content provided at the URL. User who turning-on the television set or changing the channel with any program not in mind to feel interest in the program on display by chance can enjoy the program from the

beginning by means of downloading corresponding digital file of the same contents through internet by an automatic link.

The closest prior art Ullman et al ("Ullman", US. Patent. No 6,018,768) discloses a system for integrating video programming with the vast information resources of the Internet. A computer-based system receives a video program with embedded uniform resource locators (URLs). The URLs, the effective addresses of locations or Web sites on the Internet, are interpreted by the system and direct the system to the Web site locations to retrieve related Web pages. Upon receipt of the Web pages by the system, the Web pages are synchronized to the video content for display. The video program signal can be displayed on a video window on a conventional personal computer screen. The actual retrieved Web pages are time stamped to also be displayed, on another portion of the display screen, when predetermined related video content is displayed in the video window. As an alternative, the computer-based system receives the URLs directly through an Internet connection, at times specified by TV broadcasters in advance. The system interprets the URLs and retrieves the appropriate Web pages. The Web pages are synchronized to the video content for display in conjunction with a television program being broadcast to the user at that time. This alternative system allows the URLs to be entered for live transmission to the user.

Prior art of record, Day et al ("Day", US 2007/0174336), discloses a methods for managing resources and preventing conflicts when locally recording media assets in multimedia delivery systems. When a user selects a multimedia asset for playback, an "on demand" or

alternative source session is started for the asset associated with the pointer. Before the expiration date of the alternative source equivalent of the multimedia asset, it may be downloaded and recorded locally. The system may automatically determine based on various factors, such as transmission bandwidth, latency, and DRM, whether to store assets or pointers. a user may want to locally record a program from a multimedia source 120a, 120b, 120c, such as a broadcast program, or web content 121, or a pay-per-view program, for example, from data source 124a. The IPG residing on the user equipment 110 will then check if the same program is also available as VOD content from a VOD server and may, if the program is available as VOD content, defer recording of the actual program until, for example, just before the expiration date of the VOD content. In this case, the IPG may indicate in the user's PVR recording list that the VOD content was recorded locally on recording device 114, while in fact only storing a pointer to the VOD content on the VOD server or a small "quick start-up" portion of the VOD content.

Prior art of record, Nashida et al ("Nashida", US 2002/0013945), describes an invention that provides broadcast content to a user device when it is not available. A recording center station includes functions for receiving a broadcast wave and saving or recording received data. In response to a request from each receiving station, the recording center station substitutionally records a specified broadcast program and provides a recorded content.

Prior art of record, Yu et al ("Yu", US 2010/0111504), discloses searching and providing content once not available. A system that incorporates teachings of the present disclosure may include, for example, a digital video recording (DVR) system having a controller to record video

content supplied by an interactive television (iTV) communication system as directed by a plurality of users of the iTV communication system, receive from a communication device of one of the plurality of users a request for a portion of the recorded video content, identify a need to transcode the requested portion of the recorded video content according to one or more operating characteristics of the communication device, transcode the requested portion of the recorded video content to conform with the one or more operating characteristics of the communication device, and transmit to the communication device the transcoded video content.

Prior art of record, Craner et al (“Craner”, US 20080155615), discloses an interactive media guidance application with enhanced index point management support. In connection with the enhanced index point management support, users may establish personal index points into a media asset or content selection. As used herein, a media asset or content selection refers to any media content capable of being indexed by a user's equipment. Examples of commonly indexed assets include recorded content (e.g., content recorded to a digital video recorder (DVR) or other storage device), on-demand content (e.g., video on-demand (VOD) content), pay-per-view content, DVD content, and digital music. In addition, indexed assets may include playlists, or ordered lists of content. To view a media asset, the interactive media guidance application may access a list of available index points associated with the requested asset. Each index point in the list of available index points may reference a current viewing location within the asset. The interactive media guidance application may then present a listing of the available index points to the user. To access the requested asset, the user may select one of the available index points or create a new index point.

Prior art of record, Moroney et al (“Moroney”, US 2008/0015997), discloses an apparatus and method for re-enabling digital content data. From a security perspective, it is important that only a single device possesses the key to the one valid copy. Thus, on the original secure move from the PVR, the content is re-encrypted before transfer a content distribution system 100 (e.g., a cable system or an Internet Protocol rights management (IPRM) system) that utilizes a conditional access system (e.g. MediaCipher.TM.) or an authenticated key management protocol (e.g., MOTOROLA ESBroker.TM. protocol) to facilitate the secure transfer of digital rights and content

However, none of Ullman, Day, Nashida, Yu, Craner and Moroney teaches or suggests, alone or in combination, the particular combination of steps or elements as recited in the independent claims 1, 5 and 9. For example, none of the cited prior art teaches or suggest the steps of *“instructions to designate a part of the digital moving image contents in the provider automatically or in response to a manual operation; a step of keeping information necessary for the executing step to automatically designate a succeeding part of the digital moving image contents to a viewed part of the digital moving image contents; a step of controlling the keeping step to keep the information in response to a termination of viewing the viewed part and control the executing step to automatically designate the succeeding part of the digital moving image contents when the viewing starts again; a step of receiving the designated succeeding part of the digital moving image contents in response to the designation by the executing step; and a step of*

displaying the succeeding part of the digital moving image contents received by the receiving step.” in view of other limitations of claims 1, 5 and 9.

Therefore the claims are allowable over the cited prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALI SHAYANFAR whose telephone number is (571)270-1050. The examiner can normally be reached on Monday through Friday 9:30-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, HADI S. ARMOUCHE can be reached on 571-270-3618. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ALI SHAYANFAR/
Primary Examiner, Art Unit 2497

Notice of References Cited	Application/Control No. 15/633,776		Applicant(s)/Patent Under Reexamination TANAKA, MASAhide	
	Examiner ALI SHAYANFAR		Art Unit 2497	Page 1 of 1

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*	C	US-2010/0263002 A1	10-2010	Meuninck; Troy C.	G11B27/322	725/91
*	D	US-2010/0154023 A1	06-2010	Dey; Sponson	H04N21/41407	725/151
*	E	US-2010/0088721 A1	04-2010	Hong; Ho Taek	H04N7/17318	725/38
*	F	US-2010/0063989 A1	03-2010	MEHTA; NEERAV	H04N21/2343	709/202
*	G	US-2009/0287554 A1	11-2009	Kim; Byounggak	G06Q30/02	705/14.14
*	H	US-2008/0320522 A1	12-2008	Jones; Martin Kelly	H04H20/38	725/46
*	I	US-2009/0125291 A1	05-2009	Mohandas; Praveen A.	G06T7/00	703/13
*	J	US-2008/0310518 A1	12-2008	Song; Hwangjun	H04N21/2221	375/240.27
*	K	US-2008/0313670 A1	12-2008	Ho; Chi Fai	H04N5/44591	725/34
*	L	US-2009/0175218 A1	07-2009	Song; Jae Hyung	H03M13/271	370/328
*	M	US-2012/0021732 A1	01-2012	Lam; Peter Ar-Fu	H04W4/00	455/418

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Zhang et al, "An integrated live interactive content insertion system for digital TV commerce", IEEE, 2002, pages 1-8.
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

U.S. Patent and Trademark Office
PTO-892 (Rev. 01-2001)

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Part of Paper No. 20171117



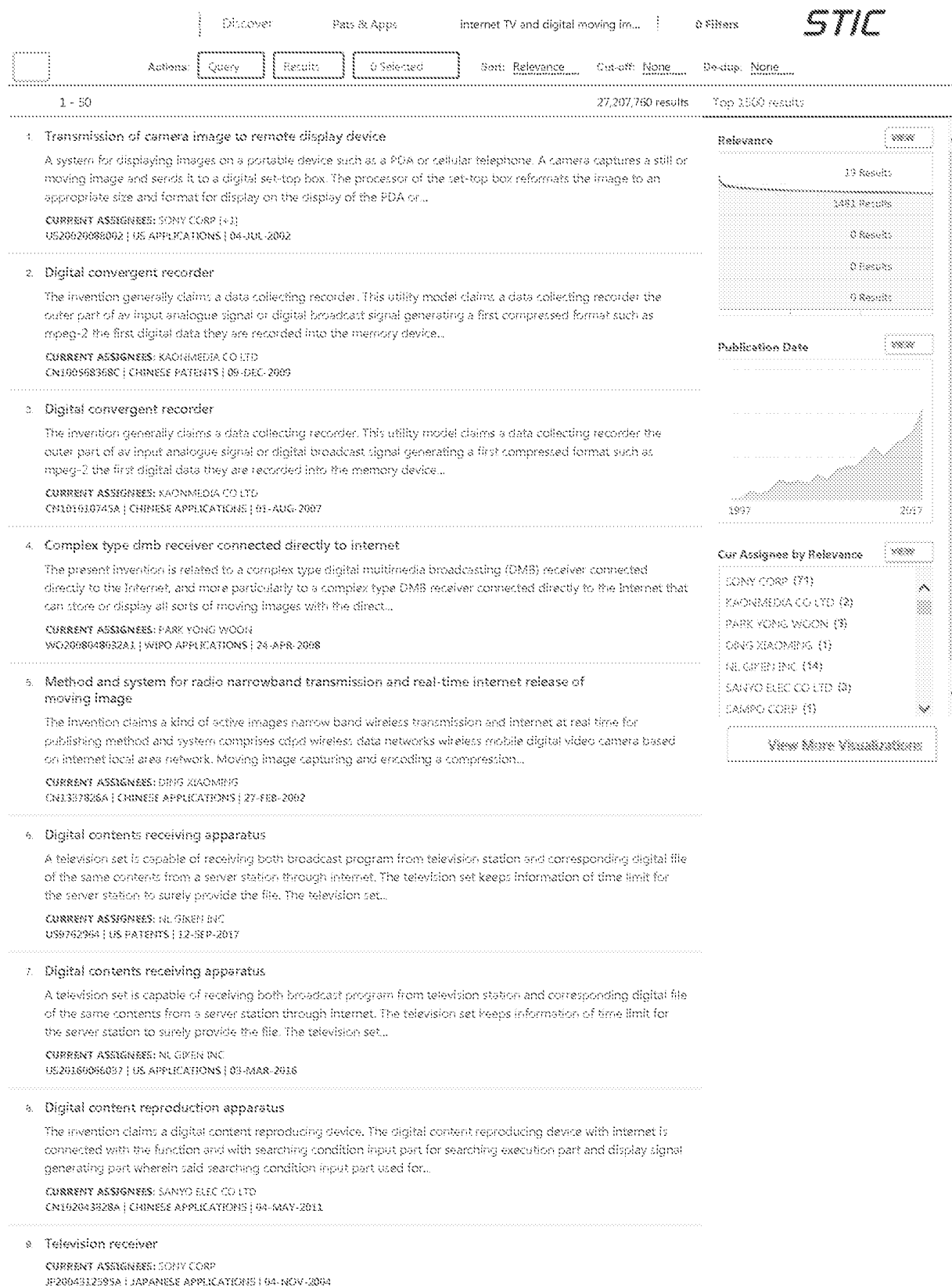
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BIB DATA SHEET

CONFIRMATION NO. 5281

SERIAL NUMBER 15/633,776	FILING or 371(c) DATE 06/27/2017 RULE	CLASS 725	GROUP ART UNIT 2497	ATTORNEY DOCKET NO. US8CA4		
APPLICANTS INVENTORS Masahide Tanaka, Osaka, JAPAN; ** CONTINUING DATA ***** This application is a CON of 14/934,331 11/06/2015 PAT 9762964 which is a CON of 14/519,389 10/21/2014 PAT 9210484 which is a CON of 14/224,070 03/25/2014 PAT 8893187 which is a CON of 12/557,476 09/10/2009 PAT 8726028 ** FOREIGN APPLICATIONS ***** JAPAN 2008-235797 09/14/2008 ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** SMALL ENTITY ** 07/03/2017						
Foreign Priority claimed ☒ Yes ☐ No 35 USC 119(a-d) conditions met ☒ Yes ☐ No Verified and Acknowledged <u>/ALI SHAYANFAR/</u> Examiner's Signature		☐ Met after Allowance Initials	STATE OR COUNTRY JAPAN	SHEETS DRAWINGS 8	TOTAL CLAIMS 12	INDEPENDENT CLAIMS 3
ADDRESS MASAHIDE TANAKA 1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN OSAKA, JAPAN						
TITLE Digital contents receiving apparatus						
FILING FEE RECEIVED 730	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:			☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit		



10. Activity monitoring system with multipoint image display and method thereof	Internet TV and digital moving im... 0 Filters
An activity monitoring system with multipoint image display and method thereof, the system includes at least one image transmitter, at least one image receiver and at least one image display. Moreover, the image transmitter detects a movable image and generates a trigger message corresponded to the...	
CURRENT ASSIGNEES: SAMPO CORP TW200937963A TAIWANESE APPLICATIONS 01-SEP-2009	
11. Complex digital multimedia broadcasting receiver	
A complex DMB receiver is provided which not only has a multimedia function but also can transmit a received digital multimedia broadcast to a counterpart Internet address through a wireless network and can receive various data from the counterpart terminal through the wireless network.	
CURRENT ASSIGNEES: PARK YONG WOON WO2008063548A1 WIPO APPLICATIONS 12-JUN-2008	
12. Prepaid type print charging system of network	
CURRENT ASSIGNEES: CANON INC JP2009331135A JAPANESE APPLICATIONS 21-NOV-2009	
13. Digital data storage and presentation device	
A dedicated device operating independently of a personal computer which can create a multi-volume removable medium archive of digital data from a variety of data sources, such as image data from a digital camera, a scanner or the Internet. Stored data can subsequently be sorted, searched, retrieved...	
CURRENT ASSIGNEES: BERNARD JAMES PAYNE GB2358729A GREAT BRITAIN APPLICATIONS 03-AUG-2009	
14. Online relay broadcasting system	
(57) [summary] The present invention relates to online relay broadcasting system, along with the televised broadcast, when set up a plurality of digital cameras around the stadium, will be retrocast on the Internet the status of the stadium, the user you have to be able to watch not only to be...	
CURRENT ASSIGNEES: キム ソウヘ JP2009532346A JAPANESE APPLICATIONS 28-OCT-2009	
15. Complex type dmb receiver	
The present invention is related to a complex type digital multimedia broadcasting (DMB) receiver, and more particularly to a complex type DMB receiver capable of local area wireless communication and being connected to an internet that can perform a multimedia function and a function of small...	
CURRENT ASSIGNEES: PARK YONG WOON WO2008056325A1 WIPO APPLICATIONS 15-MAY-2008	
16. Moving image reproducing apparatus and moving image reproducing method	
The invention claims a moving image reproduction device and moving image reproduction method. The utility model claims a digital television broadcast receiving device comprises: Label browser function by label and label 13 #1 #2 14 for switching picture and reproducing from the network distribution...	
CURRENT ASSIGNEES: TOSHIBA CORP CN10139976A CHINESE APPLICATIONS 01-APR-2009	
17. Moving image storage delivery method	
<P>PROBLEM TO BE SOLVED: To provide a moving picture storing and distributing method with which a video telephone image received from a video telephone terminal via a public switched telephone network (PSTN) can be browsed as a moving picture on the Internet. <P>SOLUTION: The moving picture storing...	
CURRENT ASSIGNEES: 株式会社国際映像研究所 JP5326070B2 JAPANESE PATENTS 30-OCT-2013	
18. Moving picture storing and distributing method	
The object of the Problems] The present invention aims to provide a moving image storage distribution method that can be viewed as a moving picture on the Internet videophone images from the video phone terminal received via the PSTN network. In moving image storage distribution method accumulates...	
CURRENT ASSIGNEES: KASEN BAITAI KEIKYUSHO KK JP2010088130A JAPANESE APPLICATIONS 15-APR-2010	
19. Digital motion video information reproducing apparatus	
CURRENT ASSIGNEES: 株式会社ブルーエヌバーサル JP355083B2 JAPANESE PATENTS 18-AUG-2004	
20. Moving image video digital information incorporating advertisement site information and device for reproducing the moving image video digital information	

STIC

CURRENT ASSIGNEES: BLUE UNIVERSAL KY JP2003070834A JAPANESE APPLICATIONS 04-MAR-2003 Pats & Apps	
Internet TV and digital moving im... 0 Filters	
21. Viewing system and method	A method and system for viewing a stage performance captured by a video camera with encoder for streaming wherein a live stream of images received from the camera over the Internet or by other means is manipulated using a touchplate to permit the viewer of the performance on a remote display screen...
CURRENT ASSIGNEES: CHAPMAN KAREN WO2015153615A1 WIPO APPLICATIONS 08-OCT-2015	
22. Television set	A control unit responds to an operating command from a remote controller received by a light receiving unit to switch the subject of display on an image display unit to image information applied to an input terminal and sends the image information over a network via a communication I/F to a location...
CURRENT ASSIGNEES: TOSHIBA CORP US20060080713 US APPLICATIONS 13-APR-2006	
23. Viewing system and method	A method and system for viewing a stage performance captured by a video camera with encoder for streaming wherein a live stream of images received from the camera over the Internet or by other means is manipulated using a touchplate to permit the viewer of the performance on a remote display screen...
CURRENT ASSIGNEES: CHAPMAN KAREN EP3127325A1 EUROPEAN APPLICATIONS 08-FEB-2017	
24. Device and method for controlling image information and computer readable storage medium	
CURRENT ASSIGNEES: CANON INC JP2001309318A JAPANESE APPLICATIONS 02-NOV-2001	
25. The interactive television	A television signal (digital or analog), a tv - transmitter (104) to the receiver (108) of the user's. Parallel to this end, the central server (102) on the basis of synchronization information of the tv - transmitter a data signal (204). This contains a first uid to an Internet page (208); as well...
CURRENT ASSIGNEES: MM1 CONSULTING & MARK PARTNERSC (+1) DE102008028849B3 GERMAN PATENTS 31-DEC-2009	
26. Digital device and method for controlling the same	The present invention relates to a digital device and a control method thereof. When receiving an input from a remote controller to drag a screen from a first point to a second point on a screen, a screen image is generated based on the current screen, is displayed on the screen and the screen image...
CURRENT ASSIGNEES: LG ELECTRONICS KR20170092408A KOREAN APPLICATIONS 11-AUG-2017	
27. Recording system and playback system	[Problem]] to increase the length of available recording videos such as a mobile phone terminal. A Dial-up from the TV phone terminal having a videophone function to the circuit-switched equipment of digital line, by sending a recording start request from the TV phone terminal to the circuit...
CURRENT ASSIGNEES: 三菱 電機 JP3103542U JAPANESE PATENTS 26-AUG-2004	
28. Viewing system and method	A method and system for viewing a stage performance captured by a video camera with encoder for streaming wherein a live stream of images received from the camera over the Internet or by other means is manipulated using a touchplate to permit the viewer of the performance on a remote display screen...
CURRENT ASSIGNEES: CHAPMAN KAREN US20150281744 US APPLICATIONS 01-OCT-2015	
29. Streaming content associated with a portion of a tv screen to a companion device	A television system allows extraction of a sub-image and streaming of the sub-image contents to an external device during a sequence of successive screen refresh intervals.
CURRENT ASSIGNEES: KONINK. PHILIPS NV WO2003049428A1 WIPO APPLICATIONS 12-JUN-2003	
30. Streaming content associated with a portion of a tv screen to a companion device	A television system allows extraction of a sub-image and streaming of the sub-image contents to an external device during a sequence of successive screen refresh intervals
CURRENT ASSIGNEES: KONINK. PHILIPS NV	

STIC

EPI459524A1 EUROPEAN APPLICATIONS 22-SEP-2004	Discover	Pats & Apps	Internet TV and digital moving im...	0 Filters
31. Digital device and method of processing data the same A digital device and a method for processing data in the digital device are disclosed herein. Here, the digital device according to an embodiment of the present invention may include a receiving unit for receiving application data, an image processing unit for rendering each tile of the first image... CURRENT ASSIGNEES: LG ELECTRONICS KR20170022334A KOREAN APPLICATIONS 02-MAR-2017				
32. Digital POP System POP running applications and wired communication module has been installed, POP server and user images available digital devices and wired and wireless communications, and which is connected to a flexible digital POP POP server images provided by the user digital devices, POP transfers the image to... CURRENT ASSIGNEES: KIM KYOUNG JOONG KR20150031507A KOREAN APPLICATIONS 25-MAR-2015				
33. Information processor, information processing method, and information processing program CURRENT ASSIGNEES: SONY CORP JP2010026780A JAPANESE APPLICATIONS 04-FEB-2010				
34. A digital broadcast receiver and a method for providing graphic user interface The invention claims a digital broadcast receiver and providing graphical user interface method of. Digital broadcast receiver can be used in the picture displayed on the virtual key-press the virtual keys can be set in a plurality of areas each area has the other areas the unique identifier and... CURRENT ASSIGNEES: LG ELECTRONICS CN102006518A CHINESE APPLICATIONS 06-APR-2011				
35. Space-shifting ip streaming system achieved through a video playback method based on a rich internet application (RIA) The present invention relates to a place-shifting IP streaming system using an RIA-based moving image playback method which increases users' accessibility by removing the difficulties of performing download and setting players for respective client PCs having various environment and enables various... CURRENT ASSIGNEES: CHOI JUNG IN EP2182723A2 EUROPEAN APPLICATIONS 05-MAY-2010				
36. Moving image storage delivery method CURRENT ASSIGNEES: 株式会社画像情報研究所 JP4562346B2 JAPANESE PATENTS 13-OCT-2010				
37. Internet DTV system and broadcast-station system, audience terminal, content provider device, server, and control method and storage medium An Internet DTV system and its broadcast station system, an audience terminal, a content provider device, a server, and a control method and a storage medium, providing a bidirectional communication environment to an audience, and enabling the audience to browse contents provided from the Internet... CURRENT ASSIGNEES: CANON INC US20020124263 US APPLICATIONS 05-SEP-2002				
38. Streaming content associated with a portion of a TV screen to a companion device A television system allows extraction of a sub-image and streaming of the sub-image contents to an external device during a sequence of successive screen refresh intervals CURRENT ASSIGNEES: FUNAI ELEC CO LTD US20030107677 US APPLICATIONS 12-JUN-2003				
39. Electronic device and method for playing moving image The present invention relates to an electronic apparatus and method for reproducing moving pictures. An electronic device according to various embodiments, comprising: a display; A processor electrically coupled to the display; And a memory electrically coupled to the processor, wherein the... CURRENT ASSIGNEES: SAMSUNG ELECTRONICS CO LTD KR20170019819A KOREAN APPLICATIONS 22-FEB-2017				
40. A digital broadcast receiver and a method for providing graphic user interface The invention claims a digital broadcast receiver and providing graphical user interface method of. Digital broadcast receiver can be used in the picture displayed on the virtual key-press the virtual keys can be set in a plurality of areas each area has the other areas the unique identifier and... CURRENT ASSIGNEES: LG ELECTRONICS CN102006518B CHINESE PATENTS 04-MAR-2015				

STIC

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41. Space-shifting ip streaming system achieved through a video playback method based on a rich internet application (Ria)Discover Pats & Apps Internet TV and digital moving im... 0 Filters

The present invention relates to a place-shifting IP streaming system using an RIA-based moving image playback method which increases users' accessibility by removing the difficulties of performing download and setting players for respective client PCs having various environment and enables various...

CURRENT ASSIGNEES: CHOI JUNG IN
US20110016484 | US APPLICATIONS | 20-JAN-2011

42. Moving image processing method, moving image processing system, and moving image processing program

The present invention moving image processing method of the first image can be shortened waiting time until the displayed aim to provide a video processing system and a moving picture processing program. A transmitting device 1 transmits the first image data if generated based on the moving image...

CURRENT ASSIGNEES: LOCIONEXT INC
JP2010072919A | JAPANESE APPLICATIONS | 09-MAY-2010

43. Streaming content associated with a portion of a TV screen to a companion device

A television system allows extraction of a sub-image and streaming of the sub-image contents to an external device during a sequence of successive screen refresh intervals.

CURRENT ASSIGNEES: FUNAI ELEC CO LTD
US6940508 | US PATENTS | 06-SEP-2005

44. Apparatus and Methods for Entertaining and Advertising to Commuters Using Public Transport

Apparatus and Methods for Entertaining and Advertising to Commuters Using Public Transport -- As per latest study of census data published in February 2014, about 700,000 Australians rely on public transport. This number is going to be increasing considerably due to constant raise of fuel price...

CURRENT ASSIGNEES: AD TV
AU2014101322A4 | AUSTRALIAN PATENT DOCUMENTS | 04-DEC-2014

45. Av system and method of capturing moving image and transmitting of captured moving image using av system

An AV system and a moving picture capture and transmission method using the AV system are provided to allow a user to use a moving picture in a digital device such as a mobile communication terminal by capturing the moving picture to obtain a picture for which the user wishes, storing the captured...

CURRENT ASSIGNEES: SAMSUNG ELINC CO LTD
KR20070019901A | KOREAN APPLICATIONS | 16-FEB-2007

46. Content Reproduction Device and Content Reproduction Method

According to one embodiment, a content reproduction device connected through a network to a content server comprises a content acquisition module configured to function as a server for a client computer which retrieves to select content registered in the content server and to acquire the content...

CURRENT ASSIGNEES: TOSHIBA CORP
US20100121942 | US APPLICATIONS | 13-MAY-2010

47. Digital set-top box system having karaoke function

The present invention relates to a digital set-top box having a karaoke function. System memory (15) stores various types of programs required to operate the set-top box, and audio/video data memory (20) stores MIDI content. A CPU (16) processes a broadcast signal, and controls driving of various...

CURRENT ASSIGNEES: DIGITAL MULTIMEDIA TECH CO LTD
WO2008026806A1 | WIPO APPLICATIONS | 06-MAR-2008

48. Image display device and image display method

CURRENT ASSIGNEES: TOSHIBA CORP
JP2004219811A | JAPANESE APPLICATIONS | 05-AUG-2004

49. External display adjustment device, and external display adjustment method, and recording medium recording external display adjustment processing program

CURRENT ASSIGNEES: CANO COMPUT CO LTD
JP200220465A | JAPANESE APPLICATIONS | 19-JUL-2002

50. Technique for handling a universal image format on the internet

A method, apparatus, and article of manufacture for a computer-implemented universal image format solution. Data is accessed at a server computer from a client computer connected to the server computer via a network. The data is stored on a data storage device connected to the server computer. At...

CURRENT ASSIGNEES: DITL BUSINESS MACHINES CORP
US6959339 | US PATENTS | 25-OCT-2005

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internet TV and digital moving im...

Others

STC

Issue Classification 	Application/Control No. 15633776	Applicant(s)/Patent Under Reexamination TANAKA, MASAhide	
	Examiner ALI SHAYANFAR	Art Unit 2497	

CPC						
Symbol					Type	Version
H04N		21	I	2665	F	2013-01-01
H04N		21	I	4622	I	2013-01-01
H04N		21	I	4331	I	2013-01-01
H04N		21	I	4383	I	2013-01-01
H04N		21	I	8586	I	2013-01-01
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CPC Combination Sets					
Symbol		Type	Set	Ranking	Version

		Total Claims Allowed:	
		12	
(Assistant Examiner)	(Date)		
/ALI SHAYANFAR/	11/17/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Issue Classification 	Application/Control No. 15633776	Applicant(s)/Patent Under Reexamination TANAKA, MASAHIDE
	Examiner ALI SHAYANFAR	Art Unit 2497

US ORIGINAL CLASSIFICATION						INTERNATIONAL CLASSIFICATION														
CLASS		SUBCLASS				CLAIMED					NON-CLAIMED									
						H	0	4	N	21 / 00 (2011.01.01)										
CROSS REFERENCE(S)																				
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)																			

		Total Claims Allowed:	
		12	
(Assistant Examiner)	(Date)		
/ALI SHAYANFAR/	11/17/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Issue Classification 	Application/Control No. 15633776	Applicant(s)/Patent Under Reexamination TANAKA, MASAhide
	Examiner ALI SHAYANFAR	Art Unit 2497

☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1														
2	2														
3	3														
4	4														
5	5														
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10	10														
11	11														
12	12														

		Total Claims Allowed:	
		12	
(Assistant Examiner) /ALI SHAYANFAR/ Primary Examiner. Art Unit 2497	(Date) 11/17/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

<i>Index of Claims</i> 	Application/Control No. 15633776	Applicant(s)/Patent Under Reexamination TANAKA, MASAhide
	Examiner ALI SHAYANFAR	Art Unit 2497

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☒ Claims renumbered in the same order as presented by applicant				☐ CPA		☒ T.D.		☐ R.1.47	
CLAIM		DATE							
Final	Original	08/05/2017	11/17/2017						
1	1	✓	=						
2	2	✓	=						
3	3	✓	=						
4	4	✓	=						
5	5	✓	=						
6	6	✓	=						
7	7	✓	=						
8	8	✓	=						
9	9	✓	=						
10	10	✓	=						
11	11	✓	=						
12	12	✓	=						

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	18	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/11/22 10:56
L2	59	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) and (turn near3 off)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/11/22 10:56
L3	26	(internet (video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) and (turn near3 off) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/11/22 11:01
S1	262	((Masahide) near2 (Tanaka)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/07/18 21:43
S2	45	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (manual near operation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 21:48
S4	579	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 21:50
S5	560	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3)and automatic\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 21:51
S6	276	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3)same automatic\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2016/07/18 21:51

			DERWENT; IBM_TDB			
S7	4546	H04N7/16.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 22:19
S8	11298	H04N21/4331.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 22:19
S9	9277	H04N21/4383.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 22:19
S10	3228	H04N21/4424.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 22:19
S11	2646	H04N21/4432.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 22:20
S12	7	((Masahide) near2 (Tanaka)).INV. and S7	US-PGPUB; USPAT; USOCR	OR	OFF	2016/07/18 22:20
S13	7	((Masahide) near2 (Tanaka)).INV. and S8	US-PGPUB; USPAT; USOCR	OR	OFF	2016/07/18 22:21
S14	7	((Masahide) near2 (Tanaka)).INV. and S9	US-PGPUB; USPAT; USOCR	OR	OFF	2016/07/18 22:21
S15	14	((Masahide) near2 (Tanaka)).INV. and S10	US-PGPUB; USPAT; USOCR	OR	OFF	2016/07/18 22:21
S16	0	automatic near2 recording near2 playback near (digital adj content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 09:06
S17	56093	(internet(video near2 programS4) (digital near content)) and (internet (URL)) and (server) and (broadcastS\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	ON	2016/08/08 09:06

			JPO; DERWENT; IBM_TDB			
S18	5578	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 09:06
S19	45	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (manual near operation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 09:07
S20	6	TVO and URL and (manual near operation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 09:07
S21	262	((Masahide) near2 (Tanaka)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/08/08 09:08
S23	48	((Masahide) near2 (Tanaka)).INV. and (digital with content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 10:23
S24	11256	H04N21/4331.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 10:32
S25	16	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) and S24	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 10:32
S26	4538	H04N7/16.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 10:33
S27	518	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and S26	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2016/08/08 10:33

			IBM_TDB			
S28	7	"20070112583"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 11:29
S29	0	"1255747476"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 11:45
S30	9	"12557476"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 11:46
S31	2602	H04N21/4432.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 12:53
S32	25	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) and S31	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 12:53
S33	470	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (turn near3 off)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:09
S34	458	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (turn near3 off) and (program schedule)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:09
S36	24	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (turn near3 off) and ((program schedule) near4 table)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:10
S37	32931	(internet(video near2 program\$4) (digital near3 content)) and (internet (URL)) same (broadcast\$3) same (program schedule)	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	ON	2016/08/08 13:47

			JPO; DERWENT; IBM_TDB			
S38	31884	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same (program schedule)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:47
S39	473	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:48
S40	0	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) same (turn near3 off)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:48
S41	53	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) and (turn near3 off)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:48
S42	472	(internet(video near2 program\$4) (digital near3 content)) with (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 14:02
S43	343	(internet(video near2 program\$4) (digital near3 content)) with (internet (URL)) same (broadcast\$3) with((program schedule) near3 table)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 14:02
S49	1331	((Masahide) near2 (Tanaka)).INV.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:13
S50	2790	H04N21/4432.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:14
S51	25	(iTV (internet near TV)) and user and (manually with select\$4) and (server)	US-PGPUB; USPAT;	OR	ON	2017/01/09 18:14

		and (broadcast\$3) and S50	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S52	46	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (manual near operation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:14
S53	18	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:15
S54	11847	H04N21/4331.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:29
S55	12	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) and S54 AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:29
S56	276	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3)and automatic\$4 AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:30
S60	11865	H04N21/4331.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/22 19:05
S61	7	((Masahide) near2 (Tanaka)).INV. and S60	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/22 19:05
S62	3427	H04N21/4424.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/22 19:05

S63	14	((Masahide) near2 (Tanaka)).INV. and S62	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/22 19:05
S64	276	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3)and automatic\$4 AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/22 19:06
S65	1	"6018768".pn.	USPAT	OR	OFF	2017/01/22 19:10
S66	52	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near3 stream\$3) and (manual near2 operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/22 19:21
S67	26	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) and (turn near3 off) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/22 19:21
S70	18	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/13 15:47
S71	0	TVO and URL and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/13 15:47
S72	283	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/13 15:48
S73	26	(internet (video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) and (turn near3 off) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/15 22:17
S74	68	((Masahide) near2 (Tanaka)).INV. and (video (digital near4 content)) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR;	OR	ON	2017/02/15 22:18

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S75	0	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) same (turn near3 off) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/15 22:26
S76	280	((Masahide) near2 (Tanaka)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/02/15 22:31
S77	10	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and S76 AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/15 22:31
S79	18	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/15 23:44
S80	166	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) same automatic\$4 AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 11:59
S81	715	(iTV (internet near TV)) and (server) and (broadcast\$3) and (digital near3 content) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:05
S82	0	((iTV (internet near TV)) and (server) and (broadcast\$3) and (digital near3 content)).ti. AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:05
S85	386	((digital near3 content) video) with (iTV (internet near3 TV)).ti. AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:07
S86	52	((digital near3 content) video) with broadcast\$4 with (iTV (internet near3 TV)).ti. AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2017/02/16 12:08

			DERWENT; IBM_TDB			
S88	280	((Masahide) near2 (Tanaka)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/02/16 12:16
S89	33	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and S88	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:16
S90	0	TVO and URL and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:35
S91	18	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:35
S92	4	"14519389"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 14:33
S93	11	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (turn near3 off) and ((program schedule) near4 table) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 14:56
S94	2	TVO and URL and switch and display AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 14:57
S95	1578	(i\$TV (internet near2 TV)) and URL and switch and display AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 14:57
S96	1118	(i\$TV (internet near2 TV)) and URL and switch and display and (internet (URL)) and (server) and (broadcast\$3) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 14:58

S97	1093	(i\$TV (internet near2 TV)) and URL and switch and display and (internet (URL)) and (server) and (broadcast\$3) and (video (digital near3 content)) AND (@ad< "20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 15:00
S98	100	(i\$TV (internet near2 TV)) and URL and switch and display and (internet (URL)) and (server) and (broadcast\$3) and (video (digital near3 content)) and ((program schedule) near4 table) AND (@ad< "20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 15:01
S99	0	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) same (turn near3 off) AND (@ad< "20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 15:02
S100	166	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) same automatic\$4 AND (@ad< "20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 15:06
S101	46	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (manual near operation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 15:09
S103	3567	H04N21/4424.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 15:12
S104	16	((Masahide) near2 (Tanaka)).INV. and S103	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/02/16 15:12
S106	48	((Masahide) near2 (Tanaka)).INV. and (digital with content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/06 13:45
S108	102	(i\$TV (internet near2 TV)) and URL and switch and display and (internet (URL)) and (server) and (broadcast\$3) and (video (digital near3 content)) and ((program	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2017/11/17 17:11

		schedule) near4 table) AND (@ad<"20090910")	DERWENT; IBM_TDB			
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EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S44	0	((internet(video near2 program\$4) (digital near content)) with (internet (URL)) with (server) with (broadcast\$3)with(live near stream\$3) with (manual near operation)).clm.	US-PGPUB; USPAT	OR	ON	2016/08/08 12:58
S45	6	(digital near3 content near4 manual\$4 near5 turn near3 off).clm.	US-PGPUB; USPAT	OR	ON	2016/08/08 13:06
S46	6	(manual\$4 near5 turn\$1 near3 apparatus near5 afterwards).clm.	US-PGPUB; USPAT	OR	ON	2016/08/08 13:08
S47	6	(manual\$4 near5 turn\$1 near3 apparatus near5 afterward).clm.	US-PGPUB; USPAT	OR	ON	2016/08/08 13:08
S48	4	(information near5 digital near3 mov\$4 near4 image near4 manual\$4 near5 turn near3 off).clm.	US-PGPUB; USPAT	OR	ON	2016/08/08 13:49
S57	0	((internet(video near2 program\$4) (digital near content)) with (internet (URL)) with (server) with (broadcast\$3)with(live near stream\$3) with (manual near operation)).clm.	US-PGPUB; USPAT	OR	ON	2017/01/09 18:16
S58	6	(digital near3 content near4 manual\$4 near5 turn near3 off).clm.	US-PGPUB; USPAT	OR	ON	2017/01/09 18:16
S59	4	(information near5 digital near3 mov\$4 near4 image near4 manual\$4 near5 turn near3 off).clm.	US-PGPUB; USPAT	OR	ON	2017/01/09 18:16
S68	0	((internet(video near2 program\$4) (digital near content)) with (internet (URL)) with (server) with (broadcast\$3)with(live near stream\$3) with (manual near operation)).clm.	US-PGPUB; USPAT	OR	ON	2017/01/22 19:06
S69	6	(manual\$4 near5 turn\$1 near3 apparatus near5 afterwards).clm.	US-PGPUB; USPAT	OR	ON	2017/01/22 19:07
S105	0	((internet(video near2 program\$4) (digital near content)) with (internet (URL)) with (server) with (broadcast\$3)with(live near stream\$3) with (manual near operation)).clm.	US-PGPUB; USPAT	OR	ON	2017/02/16 14:58

11/ 22/ 2017 11:01:51 AM**C:\ Users\ ashayanfar\ Documents\ EAST\ Workspaces\ 15633776.wsp**

Search Notes 	Application/Control No. 15633776	Applicant(s)/Patent Under Reexamination TANAKA, MASAhide
	Examiner ALI SHAYANFAR	Art Unit 2497

CPC- SEARCHED		
Symbol	Date	Examiner
H04N7/16	11/17/2017	AS
H04N21/4432	11/17/2017	AS

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

SEARCH NOTES		
Search Notes	Date	Examiner
EAST class limited with/text search (see attached search history)	11/17/2017	AS
EAST inventor and assignee search (see attached search history)	11/17/2017	AS
EAST text search (see attached search history)	11/17/2017	AS

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
	General Interference search and search of claims (PG-PUB, USPAT)	11/17/2017	AS

/ALI SHAYANFAR/ Primary Examiner.Art Unit 2497	
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Doc Code: DIST.E.FILE Document Description: Electronic Terminal Disclaimer - Filed		PTO/SB/26 U.S. Patent and Trademark Office Department of Commerce
Electronic Petition Request	TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT	
Application Number	15633776	
Filing Date	27-Jun-2017	
First Named Inventor	Masahide Tanaka	
Attorney Docket Number	US8CA4	
Title of Invention	Digital contents receiving apparatus	
☒ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action ☒ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.		
Owner	Percent Interest	
NL Giken Incorporated	100%	
The owner(s) with percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent number(s) 9210484 8726028 as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns. In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later: - expires for failure to pay a maintenance fee; - is held unenforceable; - is found invalid by a court of competent jurisdiction; - is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321; - has all claims canceled by a reexamination certificate; - is reissued; or - is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.		

☒ Terminal disclaimer fee under 37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request. ☐ I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.	
Applicant claims the following fee status: ☒ Small Entity ☐ Micro Entity ☐ Regular Undiscounted I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.	
THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES I certify, in accordance with 37 CFR 1.4(d)(4) that I am: ☐ An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application Registration Number _____ ☒ A sole inventor ☐ A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application ☐ A joint inventor; all of whom are signing this request	
Signature	/Masahide Tanaka/
Name	Masahide Tanaka

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
 Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Patent Application Fee Transmittal				
Application Number:		15633776		
Filing Date:		27-Jun-2017		
Title of Invention:		Digital contents receiving apparatus		
First Named Inventor/Applicant Name:		Masahide Tanaka		
Filer:		Masahide Tanaka		
Attorney Docket Number:		US8CA4		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
STATUTORY OR TERMINAL DISCLAIMER	2814	1	160	160
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				160

Doc Code: DISQ.E.FILE

Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 15633776

Filing Date: 27-Jun-2017

Applicant/Patent under Reexamination: Tanaka

Electronic Terminal Disclaimer filed on November 8, 2017

☒ APPROVED

This patent is subject to a terminal disclaimer

☐ DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

Electronic Acknowledgement Receipt	
EFS ID:	30884715
Application Number:	15633776
International Application Number:	
Confirmation Number:	5281
Title of Invention:	Digital contents receiving apparatus
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US8CA4
Receipt Date:	08-NOV-2017
Filing Date:	27-JUN-2017
Time Stamp:	07:18:33
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$160
RAM confirmation Number	110817INTEFSW07182900
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer-Filed (Electronic)	eTerminal-Disclaimer.pdf	33290	no	2
			dd33d0946f2c9540ed4ccb376eeb48bd4877c063		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30218	no	2
			51d27bcd40c02624e90f4bc0b941b445933af9d3		
Warnings:					
Information:					
Total Files Size (in bytes):			63508		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Masahide TANAKA	Confirmation No.:	5281
Application No.:	15/633,776	Examiner:	SHAYANFAR, ALI
Filed:	June 27, 2017	Group Art Unit:	2497

For: A digital contents receiving apparatus

Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. § 1.111

Dear Commissioner:

In response to the Office Action dated August 10, 2017, please amend this application as follows.

AMENDMENT AND REPRESENTATION OF CLAIMS.....2

REMARKS.....5

Electronic Acknowledgement Receipt	
EFS ID:	30884758
Application Number:	15633776
International Application Number:	
Confirmation Number:	5281
Title of Invention:	Digital contents receiving apparatus
First Named Inventor/Applicant Name:	Masahide Tanaka
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US8CA4
Receipt Date:	08-NOV-2017
Filing Date:	27-JUN-2017
Time Stamp:	07:44:25
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		US8CA4NFOAResponse.pdf	279427	yes	6
			90f07be14b6be25651986f1c996e3bde83b2a50a		

	Multipart Description/PDF files in .zip description		
	Document Description	Start	End
	Applicant Arguments/Remarks Made in an Amendment	5	6
	Claims	2	4
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Warnings:			
Information:			
Total Files Size (in bytes):		279427	
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.			

REMARKS

This is in full and timely response to the Official Action of August 10, 2017. Claims 1-12 are currently pending in the application, with claims 1, 5 and 9 being independent claims. Claims 1, 5 and 9 have been amended No new matter has been introduced.

I. Double Patenting

An eTerminal Disclaimer has been filed and approved. So, the double patenting rejection has been overcome.

II. CLAIM REJECTION – 35 USC §112

Claims have been suitably amended to overcome the rejection.

III. Allowable Subject Matter

The applicant thanks to the indication that claims 1-12 would be allowable. All claims are now in the condition for allowance with Double Patenting and U.S.C. 112 rejections overcome.

IV. CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the following arguments, all claims are believed to be in condition for allowance over the prior art of record. Therefore, this response is believed to be a complete

response to the Office Action. An early and favorable action on the merits is respectfully requested.

However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers.

Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

If any unresolved issues remain, it is respectfully requested that the Examiner email the undersigned Applicant at guitar@kym.biglobe.ne.jp so that such issues may be resolved as expeditiously as possible. ***Recognizing that Internet communications are not secure, the undersigned Applicant hereby authorizes the USPTO to communicate with the undersigned Applicant concerning any subject matter of this application by electronic mail. The undersigned Applicant understands that a copy of these communications will be made of record in the application file.***

In the event the U.S. Patent and Trademark Office determines that an extension is required, Applicant petitions for any required relief including extensions of time.

Respectfully submitted,

Date: November 8, 2017

Masahide Tanaka

NL Giken Incorporated

561-0813 Ozone, Toyonaka-Shi, Osaka, Japan

/Masahide Tanaka/

Masahide Tanaka

Applicant

AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims.

1. (Currently Amended) A receiving apparatus configured to receive digital moving image contents from a provider of the digital moving image contents, the provider being commutatively connected to the receiving apparatus, the receiving apparatus comprising:
 - a processor executing instructions to designate a part of the digital moving image contents in the provider automatically or in response to a manual operation;
 - a memory that keeps information necessary for the processor to automatically designate a succeeding part of the digital moving image contents to a viewed part of the digital moving image contents;
 - a designation software controller configured to control the memory to keep the information in response to a termination of viewing the viewed part and control the processor to automatically designate the succeeding part of the digital moving image contents when the viewing starts again;
 - a receiver ~~of configured to receive~~ the designated succeeding part of the digital moving image contents in response to the designation by the processor; and
 - a display configured to display the succeeding part of the digital moving image contents received by the receiver.
2. (Original) The receiving apparatus according to claim 1, wherein the processor is configured to designate the part of the digital moving image contents by selecting the provider, wherein the part of the digital moving image contents is provided by the selected provider.
3. (Original) The receiving apparatus according to claim 1, wherein the processor is configured to designate a part of the digital moving image contents provided by the provider by streaming technology in accordance with a program schedule table.

4. (Original) The receiving apparatus according to claim 1, wherein the processor is configured to designate an optional part of the digital moving image contents in response to the manual operation.

5. (Currently Amended) A receiving method configured to receive digital moving image contents from a provider of the digital moving image contents, the receiving method comprising:

a step of executing, by a computer processor, instructions to designate a part of the digital moving image contents in the provider automatically or in response to a manual operation;

a step of keeping information necessary for the executing step to automatically designate a succeeding part of the digital moving image contents to a viewed part of the digital moving image contents;

a step of controlling the keeping step to keep the information in response to a termination of viewing the viewed part and control the executing step to automatically designate the succeeding part of the digital moving image contents when the viewing starts again;

a step of receiving the designated succeeding part of the digital moving image contents in response to the designation by the executing step; and

a step of displaying the succeeding part of the digital moving image contents received by the receiving step.

6. (Original) The receiving method according to claim 5, wherein the executing step is configured to designate the part of the digital moving image contents by selecting the provider, wherein the part of the digital moving image contents is provided by the selected provider.

7. (Original) The receiving method according to claim 5, wherein the executing step is configured to designate a part of the digital moving image contents provided by the provider by streaming technology in accordance with a program schedule table.

8. (Original) The receiving method according to claim 5, wherein the receiving method is further configured to designate an optional part of the digital moving image contents in response to the manual operation.

9. (Currently Amended) A receiving system configured to receive digital moving image contents from a provider of the digital moving image contents, the provider being commutatively connected to the receiving system, the receiving system comprising:

a processor executing instructions to designate a part of the digital moving image contents from the provider automatically or in response to a manual operation;

a memory that keeps information necessary for the processor to automatically designate a succeeding part of the digital moving image contents to a viewed part of the digital moving image contents;

a designation software controller configured to control the memory to keep the information in response to a termination of viewing the viewed part and control the processor to automatically designate a succeeding part of the digital moving image contents when the viewing starts again;

a receiver ~~of configured to receive~~ the designated succeeding part of the digital moving image contents in response to the designation by the processor; and

a display configured to display the succeeding part of the digital moving image contents received by the receiver.

10. (Original) The receiving system according to claim 9, wherein the processor is configured to designate the part of the digital moving image contents by selecting the provider, wherein the part of the digital moving image contents is provided by the selected provider.

11. (Original) The receiving system according to claim 9, wherein the processor is configured to designate a part of the digital moving image contents provided by the provider by streaming technology in accordance with a program schedule table.

12. (Original) The receiving system according to claim 9, wherein the processor is configured to designate an optional part of the digital moving image contents in response to the manual operation.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 15/633,776		Filing Date 06/27/2017		☐ To be Mailed				
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO												
APPLICATION AS FILED – PART I												
(Column 1)		(Column 2)										
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)				
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A						
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A		N/A		N/A						
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A		N/A		N/A						
TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 =		*		X \$ =						
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =		*		X \$ =						
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).										
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))												
* If the difference in column 1 is less than zero, enter "0" in column 2.						TOTAL						
APPLICATION AS AMENDED – PART II												
(Column 1)		(Column 2)		(Column 3)								
AMENDMENT	11/08/2017		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))		* 12		Minus ** 20		= 0		X \$ 0 =		0	
	Independent (37 CFR 1.16(h))		* 3		Minus *** 3		= 0		X \$ 0 =		0	
	☐ Application Size Fee (37 CFR 1.16(s))											
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))											
						TOTAL ADD'L FEE		0				
(Column 1)		(Column 2)		(Column 3)								
AMENDMENT			CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))		*		Minus **		=		X \$ =			
	Independent (37 CFR 1.16(h))		*		Minus ***		=		X \$ =			
	☐ Application Size Fee (37 CFR 1.16(s))											
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))											
						TOTAL ADD'L FEE						
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1. LIE BRENDA J. DENNY												

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



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UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/633,776	06/27/2017	Masahide Tanaka	US8CA4

CONFIRMATION NO. 5281

PUBLICATION NOTICE

67628
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN



Title:Digital contents receiving apparatus

Publication No.US-2017-0295390-A1

Publication Date:10/12/2017

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <https://portal.uspto.gov/pair/PublicPair>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/633,776	06/27/2017	Masahide Tanaka	US8CA4	5281

67628	7590	08/10/2017
MASAHIDE TANAKA		
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN		
OSAKA,		
JAPAN		

EXAMINER	
SHAYANFAR, ALI	

ART UNIT	PAPER NUMBER
2497	

NOTIFICATION DATE	DELIVERY MODE
08/10/2017	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

GUITAR@KYM.BIGLOBE.NE.JP

Office Action Summary	Application No. 15/633,776	Applicant(s) TANAKA, MASAHIRO	
	Examiner ALI SHAYANFAR	Art Unit 2497	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/27/2017.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) ☒ Claim(s) 1-12 is/are pending in the application.
5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-12 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 6/27/2017 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) ☒ All b) ☐ Some** c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date ____.
- 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 4) ☐ Other: ____.

DETAILED ACTION

1. The present application is being examined under the pre-AIA first to invent provisions.
2. This office action is in response to the application filed on 6/27/2017; Claims **1-12** are pending.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the claims at issue are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the reference application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit <http://www.uspto.gov/forms/>. The filing date of the application will determine what form should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to <http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-L.jsp>.

4. Claims 1-12 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims **1-14**, of U.S. Patent No. **8,726,028 B2** and further over claims **1-12**, of U.S. Patent No. **9,210,484 B2**. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application are broader in scope than the claims of the U.S. Patent **9,210,484 and 8,726,028 B2**. Therefore, claims **1-12** of the instant application is anticipated by claims **1-14** of U.S. Patent No. **8,726,028 B2** and claims **1-12**, of U.S. Patent No. **9,210,484 B2**

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1-12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim(s) 1 and 9 recite limitations “a receiver configured to receive...”, a means (or step) plus function limitations that invokes **35 U.S.C. 112, sixth paragraph**. However, the written description fails to disclose the corresponding structure, material, or acts for the claimed function. The specification does not adequately disclose the structure to perform the functions of the claim. **The corresponding structure must be more than a mere reference to a general purpose computer, microprocessor, specialized computer, or an undefined component of a computer system, software, logic, code, or black box element.**

Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant is required to clarify the record by either:

(a) Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b) Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

Please note that for computer-implemented "means" the corresponding structure to be disclosed is the algorithm(s) or software for performing the recited function.

Regarding claims 1, 5 and 9, as claim recites the limitation "receive and display part of digital moving image content" in lines 13 and 15, it's unclear whether "part of digital moving image content" is referring back to "succeeding part of digital moving image contents" or not. This situation renders the claim indefinite under 35 USC 112 (b).

Claims 2-4 and 10-12 are dependent on claims 1 and 9, and therefore inherit 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph issues of the independent claim.

Allowable Subject Matter

7. Claims **1-12** would be allowable if rewritten to overcome the U.S.C. 112 second rejection, and Double Patenting set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter.

The present invention is directed a television set is capable of receiving both broadcast program from television station and corresponding digital file of the same contents from a server

station through internet. The television set keeps information of time limit for the server station to surely provide the file. The television set automatically downloads the file when the time limit comes close or the time limit information is failed to be kept. The television set keeps URL for the moving image program enjoyed upon turning-off of the television set until the next turning-on for instantly enjoying the moving image content provided at the URL. User who turning-on the television set or changing the channel with any program not in mind to feel interest in the program on display by chance can enjoy the program from the beginning by means of downloading corresponding digital file of the same contents through internet by an automatic link.

Prior art of record, Nashida et al (“Nashida”, US 2002/0013945), describes an invention that provides broadcast content to a user device when it is not available. A recording center station includes functions for receiving a broadcast wave and saving or recording received data. In response to a request from each receiving station, the recording center station substitutionally records a specified broadcast program and provides a recorded content.

Prior art of record, Yu et al (“Yu”, US 2010/0111504), discloses searching and providing content once not available. A system that incorporates teachings of the present disclosure may include, for example, a digital video recording (DVR) system having a controller to record video content supplied by an interactive television (iTV) communication system as directed by a plurality of users of the iTV communication system, receive from a communication device of one of the plurality of users a request for a portion of the recorded video content, identify a need

to transcode the requested portion of the recorded video content according to one or more operating characteristics of the communication device, transcode the requested portion of the recorded video content to conform with the one or more operating characteristics of the communication device, and transmit to the communication device the transcoded video content.

Prior art, Craner et al (“Craner”, US 20080155615), discloses an interactive media guidance application with enhanced index point management support. In connection with the enhanced index point management support, users may establish personal index points into a media asset or content selection. As used herein, a media asset or content selection refers to any media content capable of being indexed by a user's equipment. Examples of commonly indexed assets include recorded content (e.g., content recorded to a digital video recorder (DVR) or other storage device), on-demand content (e.g., video on-demand (VOD) content), pay-per-view content, DVD content, and digital music. In addition, indexed assets may include playlists, or ordered lists of content. To view a media asset, the interactive media guidance application may access a list of available index points associated with the requested asset. Each index point in the list of available index points may reference a current viewing location within the asset. The interactive media guidance application may then present a listing of the available index points to the user. To access the requested asset, the user may select one of the available index points or create a new index point.

Prior art, Moroney et al (“Moroney”, US 2008/0015997), discloses an apparatus and method for re-enabling digital content data. From a security perspective, it is important that only

a single device possesses the key to the one valid copy. Thus, on the original secure move from the PVR, the content is re-encrypted before transfer a content distribution system 100 (e.g., a cable system or an Internet Protocol rights management (IPRM) system) that utilizes a conditional access system (e.g. MediaCipher.TM.) or an authenticated key management protocol (e.g., MOTOROLA ESBroker.TM. protocol) to facilitate the secure transfer of digital rights and content

However, none of Nashida, Yu, Craner and Moroney teaches or suggests, alone or in combination, the particular combination of steps or elements as recited in the independent claims 1, 5 and 9. For example, none of the cited prior art, alone or in combination, teaches or suggest the steps of “*designate a part of the digital moving image contents in the provider automatically or in response to a manual operation; automatically designate a succeeding part of the digital moving image contents to a viewed part of the digital moving image contents; a designation software controller configured to control the memory to keep the information in response to a termination of viewing the viewed part and control the processor to automatically designate the succeeding part of the digital moving image contents when the viewing starts again*” in view of other limitations of claims 1, 5 and 9.

Therefore the claims are allowable over the cited prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALI SHAYANFAR whose telephone number is (571)270-1050. The examiner can normally be reached on Monday through Friday 9:30-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HADI S. ARMOUCHE can be reached on 571-270-3618. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ALI SHAYANFAR/
Primary Examiner, Art Unit 2497

Notice of References Cited	Application/Control No. 15/633,776		Applicant(s)/Patent Under Reexamination TANAKA, MASAhide	
	Examiner ALI SHAYANFAR		Art Unit 2497	Page 1 of 1

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-2008/0015997 A1	01-2008	Moroney; Paul	G06F21/10	705/51
*	B	US-5,832,223 A	11-1998	Hara; Jacques	H04H20/93	348/449
*	C	US-2002/0013945 A1	01-2002	Nashida, Tatsushi	H04N5/76	725/58
*	D	US-2007/0174336 A1	07-2007	Day; Thomas	H04N7/17318	1/1
*	E	US-6,978,475 B1	12-2005	Kunin; David	H04M3/4938	725/106
*	F	US-5,778,181 A	07-1998	Hidary; Jack D.	H04L29/06	348/E7.024
*	G	US-2007/0112583 A1	05-2007	Hua; Xian-Sheng	G06K9/00711	382/229
*	H	US-6,018,768 A	01-2000	Ullman; Craig	H04L29/06	348/E7.024
*	I	US-2010/0111504 A1	05-2010	Yu; Ke	H04N5/76	386/241
*	J	US-2008/0155615 A1	06-2008	Craner; Michael	H04N5/765	725/91
*	K	US-2016/0080205 A1	03-2016	Brown; Anthony L.	H04L41/0853	709/220
*	L	US-2008/0127283 A1	05-2008	Sasaki; Gen	H04N7/17318	725/88
	M	US-				

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

U.S. Patent and Trademark Office
PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20170806

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	6	TVO and URL and (manual near3 operation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/07 04:16
L2	25	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (turn near3 off) and ((program schedule) near4 table)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/07 04:17
S1	262	((Masahide) near2 (Tanaka)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/07/18 21:43
S2	45	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (manual near operation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 21:48
S4	579	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 21:50
S5	560	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3)and automatic\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 21:51
S6	276	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3)same automatic\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 21:51
S7	4546	H04N7/16.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2016/07/18 22:19

			DERWENT; IBM_TDB			
S8	11298	H04N21/4331.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 22:19
S9	9277	H04N21/4383.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 22:19
S10	3228	H04N21/4424.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 22:19
S11	2646	H04N21/4432.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/07/18 22:20
S12	7	((Masahide) near2 (Tanaka)).INV. and S7	US-PGPUB; USPAT; USOCR	OR	OFF	2016/07/18 22:20
S13	7	((Masahide) near2 (Tanaka)).INV. and S8	US-PGPUB; USPAT; USOCR	OR	OFF	2016/07/18 22:21
S14	7	((Masahide) near2 (Tanaka)).INV. and S9	US-PGPUB; USPAT; USOCR	OR	OFF	2016/07/18 22:21
S15	14	((Masahide) near2 (Tanaka)).INV. and S10	US-PGPUB; USPAT; USOCR	OR	OFF	2016/07/18 22:21
S16	0	automatic near2 recording near2 playback near (digital adj content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 09:06
S17	56093	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 09:06
S18	5578	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	ON	2016/08/08 09:06

		stream\$3)	JPO; DERWENT; IBM_TDB			
S19	45	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (manual near operation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 09:07
S20	6	TVO and URL and (manual near operation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 09:07
S21	262	((Masahide) near2 (Tanaka)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/08/08 09:08
S23	48	((Masahide) near2 (Tanaka)).INV. and (digital with content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 10:23
S24	11256	H04N21/4331.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 10:32
S25	16	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) and S24	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 10:32
S26	4538	H04N7/16.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 10:33
S27	518	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and S26	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 10:33
S28	7	"20070112583"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2016/08/08 11:29

			IBM_TDB			
S29	0	"1255747476"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 11:45
S30	9	"12557476"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 11:46
S31	2602	H04N21/4432.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 12:53
S32	25	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) and S31	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 12:53
S33	470	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (turn near3 off)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:09
S34	458	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (turn near3 off) and (program schedule)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:09
S36	24	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3)and (live near stream\$3) and (turn near3 off) and ((program schedule) near4 table)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:10
S37	32931	(internet(video near2 program\$4) (digital near3 content)) and (internet (URL)) same (broadcast\$3) same (program schedule)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:47
S38	31884	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same (program schedule)	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	ON	2016/08/08 13:47

			JPO; DERWENT; IBM_TDB			
S39	473	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:48
S40	0	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) same (turn near3 off)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:48
S41	53	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) and (turn near3 off)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 13:48
S42	472	(internet(video near2 program\$4) (digital near3 content)) with (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 14:02
S43	343	(internet(video near2 program\$4) (digital near3 content)) with (internet (URL)) same (broadcast\$3) with((program schedule) near3 table)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/08 14:02
S49	1331	((Masahide) near2 (Tanaka)).INV.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:13
S50	2790	H04N21/4432.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:14
S51	25	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) and S50	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:14
S52	46	(internet(video near2 program\$4) (digital near content)) and (internet	US-PGPUB; USPAT;	OR	ON	2017/01/09 18:14

		(URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (manual near operation)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S53	18	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:15
S54	11847	H04N21/4331.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:29
S55	12	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) and S54 AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:29
S56	276	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) and automatic\$4 AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/09 18:30
S60	11865	H04N21/4331.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/22 19:05
S61	7	((Masahide) near2 (Tanaka)).INV. and S60	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/22 19:05
S62	3427	H04N21/4424.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/22 19:05
S63	14	((Masahide) near2 (Tanaka)).INV. and S62	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/22 19:05

S64	276	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) and automatic\$4 AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/22 19:06
S65	1	"6018768".pn.	USPAT	OR	OFF	2017/01/22 19:10
S66	52	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near3 stream\$3) and (manual near2 operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/22 19:21
S67	26	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) and (turn near3 off) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/01/22 19:21
S70	18	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/13 15:47
S71	0	TVO and URL and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/13 15:47
S72	283	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/13 15:48
S73	26	(internet (video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) and (turn near3 off) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/15 22:17
S74	68	((Masahide) near2 (Tanaka)).INV. and (video (digital near4 content)) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/15 22:18
S75	0	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3)	US-PGPUB; USPAT; USOCR;	OR	ON	2017/02/15 22:26

		same ((program schedule) near3 table) same (turn near3 off) AND (@ad<"20090910")	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S76	280	((Masahide) near2 (Tanaka)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/02/15 22:31
S77	10	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and S76 AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/15 22:31
S79	18	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/15 23:44
S80	166	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) same automatic\$4 AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 11:59
S81	715	(iTV (internet near TV)) and (server) and (broadcast\$3) and (digital near3 content) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:05
S82	0	((iTV (internet near TV)) and (server) and (broadcast\$3) and (digital near3 content)).ti. AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:05
S85	386	((digital near3 content) video) with (iTV (internet near3 TV)).ti. AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:07
S86	52	((digital near3 content) video) with broadcast\$4 with (iTV (internet near3 TV)).ti. AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:08
S88	280	((Masahide) near2 (Tanaka)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/02/16 12:16
S89	33	(internet(video near2 program\$4)	US-PGPUB;	OR	ON	2017/02/16

		(digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and S88	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			12:16
S90	0	TVO and URL and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:35
S91	18	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (manual near operation) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 12:35
S92	4	"14519389"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 14:33
S93	11	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (turn near3 off) and ((program schedule) near4 table) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 14:56
S94	2	TVO and URL and switch and display AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 14:57
S95	1578	(i\$TV (internet near2 TV)) and URL and switch and display AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 14:57
S96	1118	(i\$TV (internet near2 TV)) and URL and switch and display and (internet (URL)) and (server) and (broadcast\$3) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 14:58
S97	1093	(i\$TV (internet near2 TV)) and URL and switch and display and (internet (URL)) and (server) and (broadcast\$3) and (video (digital near3 content)) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2017/02/16 15:00

			IBM_TDB			
S98	100	(i\$TV (internet near2 TV)) and URL and switch and display and (internet (URL)) and (server) and (broadcast\$3) and (video (digital near3 content)) and ((program schedule) near4 table) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 15:01
S99	0	(internet(video near2 program\$4) (digital near3 content)) same (internet (URL)) same (broadcast\$3) same ((program schedule) near3 table) same (turn near3 off) AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 15:02
S100	166	(iTV (internet near TV)) and user and (manually with select\$4) and (server) and (broadcast\$3) same automatic\$4 AND (@ad<"20090910")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 15:06
S101	46	(internet(video near2 program\$4) (digital near content)) and (internet (URL)) and (server) and (broadcast\$3) and (live near stream\$3) and (manual near operation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 15:09
S103	3567	H04N21/4424.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/02/16 15:12
S104	16	((Masahide) near2 (Tanaka)).INV. and S103	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/02/16 15:12
S106	12752	H04N21/4331.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/06 20:54
S107	7	((Masahide) near2 (Tanaka)).INV. and S106	US-PGPUB; USPAT; USOCR	OR	OFF	2017/08/06 20:54
S108	3770	H04N21/4424.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/06 20:55

S109	16	((Masahide) near2 (Tanaka)).INV. and S108	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/08/06 20:55
S110	31	"9210484"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/08/06 21:01
S111	0	"9210484.pn."	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/08/06 21:01
S112	7	"8893187"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/08/06 21:01

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S44	0	((internet(video near2 program\$4) (digital near content)) with (internet (URL)) with (server) with (broadcast\$3)with(live near stream\$3) with (manual near operation)).clm.	US-PGPUB; USPAT	OR	ON	2016/08/08 12:58
S45	6	(digital near3 content near4 manual\$4 near5 turn near3 off).clm.	US-PGPUB; USPAT	OR	ON	2016/08/08 13:06
S46	6	(manual\$4 near5 turn\$1 near3 apparatus near5 afterwards).clm.	US-PGPUB; USPAT	OR	ON	2016/08/08 13:08
S47	6	(manual\$4 near5 turn\$1 near3 apparatus near5 afterward).clm.	US-PGPUB; USPAT	OR	ON	2016/08/08 13:08
S48	4	(information near5 digital near3 mov\$4 near4 image near4 manual\$4 near5 turn near3 off).clm.	US-PGPUB; USPAT	OR	ON	2016/08/08 13:49
S57	0	((internet(video near2 program\$4) (digital near content)) with (internet (URL)) with (server) with (broadcast\$3)with(live near stream\$3) with (manual near operation)).clm.	US-PGPUB; USPAT	OR	ON	2017/01/09 18:16
S58	6	(digital near3 content near4 manual\$4 near5 turn near3 off).clm.	US-PGPUB; USPAT	OR	ON	2017/01/09 18:16
S59	4	(information near5 digital near3 mov\$4 near4 image near4 manual\$4 near5 turn near3 off).clm.	US-PGPUB; USPAT	OR	ON	2017/01/09 18:16

EAST Search History

S68	0	((internet(video near2 program\$4) (digital near content)) with (internet (URL)) with (server) with (broadcast\$3)with(live near stream\$3) with (manual near operation)).clm.	US-PGPUB; USPAT	OR	ON	2017/01/22 19:06
S69	6	(manual\$4 near5 turn\$1 near3 apparatus near5 afterwards).clm.	US-PGPUB; USPAT	OR	ON	2017/01/22 19:07
S105	0	((internet(video near2 program\$4) (digital near content)) with (internet (URL)) with (server) with (broadcast\$3)with(live near stream\$3) with (manual near operation)).clm.	US-PGPUB; USPAT	OR	ON	2017/02/16 14:58

8/ 7/ 2017 4:17:45 AM

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<i>Index of Claims</i> 	Application/Control No. 15633776	Applicant(s)/Patent Under Reexamination TANAKA, MASAHIDE
	Examiner ALI SHAYANFAR	Art Unit 2497

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
CLAIM		DATE								
Final	Original	08/05/2017								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
	9	✓								
	10	✓								
	11	✓								
	12	✓								



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CONFIRMATION NO. 5281

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APPLICANTS INVENTORS Masahide Tanaka, Osaka, JAPAN; ** CONTINUING DATA ***** This application is a CON of 14/934,331 11/06/2015 which is a CON of 14/519,389 10/21/2014 PAT 9210484 which is a CON of 14/224,070 03/25/2014 PAT 8893187 which is a CON of 12/557,476 09/10/2009 PAT 8726028 ** FOREIGN APPLICATIONS ***** JAPAN 2008-235797 09/14/2008 ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** SMALL ENTITY ** 07/03/2017						
Foreign Priority claimed ☒ Yes ☐ No 35 USC 119(a-d) conditions met ☒ Yes ☐ No Verified and Acknowledged <u>/ALI SHAYANFAR/</u> Examiner's Signature		☐ Met after Allowance Initials	STATE OR COUNTRY JAPAN	SHEETS DRAWINGS 8	TOTAL CLAIMS 12	INDEPENDENT CLAIMS 3
ADDRESS MASAHIDE TANAKA 1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN OSAKA, JAPAN						
TITLE Digital contents receiving apparatus						
FILING FEE RECEIVED 730	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:			☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit		

Search Notes 	Application/Control No. 15633776	Applicant(s)/Patent Under Reexamination TANAKA, MASAhide
	Examiner ALI SHAYANFAR	Art Unit 2497

CPC- SEARCHED		
Symbol	Date	Examiner
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H04N21/4432	7/18/2016	AS

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

SEARCH NOTES		
Search Notes	Date	Examiner
EAST class limited with/text search (see attached search history)	8/4/2017	AS
EAST inventor and assignee search (see attached search history)	8/4/2017	AS
EAST text search (see attached search history)	8/4/2017	AS

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
	General Interference search and search of claims (PG-PUB, USPAT)	8/6/2017	AS

/ALI SHAYANFAR/ Primary Examiner.Art Unit 2497	
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日 本 国 特 許 庁
JAPAN PATENT OFFICE

別紙添付の書類に記載されている事項は下記の出願書類に記載されている事項と同一であることを証明する。

This is to certify that the annexed is a true copy of the following application as filed with this Office.

出 願 年 月 日
Date of Application: 2008年 9月14日

出 願 番 号
Application Number: 特願2008—235797

パリ条約による外国への出願
に用いる優先権の主張の基礎
となる出願の国コードと出願
番号

The country code and number
of your priority application,
to be used for filing abroad
under the Paris Convention, is

J P 2008—235797

出 願 人

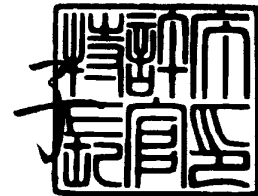
Applicant(s):

田中 雅英
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Commissioner,
Japan Patent Office

2017年 7月12日

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【発明者】
 【住所又は居所】 大阪府豊中市小曾根 1 丁目 1 7 番 9 号
 【氏名】 田中 雅英
【特許出願人】
 【識別番号】 706000296
 【住所又は居所】 大阪府豊中市小曾根 1 丁目 1 7 番 9 号
 【氏名又は名称】 田中 雅英
 【電話番号】 06-6334-6204
 【ファクシミリ番号】 06-6334-6204
【特許出願人】
 【住所又は居所】 大阪府豊中市小曾根 1 丁目 1 7 番 9 号
 【氏名又は名称】 N L 技研株式会社
 【代表者】 田中 雅英
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 【物件名】 明細書 1
 【物件名】 図面 1
 【物件名】 要約書 1

【書類名】 特許請求の範囲

【請求項 1】

所望のコンテンツを指定する指定部と、指定されたコンテンツの次回指定を容易にするための情報を記憶する記憶部と、配信装置における指定されたコンテンツの保管に関する情報に基づき指定されたコンテンツデータを配信装置から自動的に受信して保存する保存部を有することを特徴とするコンテンツ受信装置。

【請求項 2】

配信装置における指定されたコンテンツの保管に関する情報を判定する判定部を有することを特徴とする請求項 1 記載のコンテンツ受信装置。

【請求項 3】

前記判定部は、配信装置における指定されたコンテンツの保管に関する情報が確認できないとき指定されたコンテンツデータを配信装置から自動的に受信して前記保存部に保存させることを特徴とする請求項 2 記載のコンテンツ受信装置。

【請求項 4】

前記判定部は、配信装置における指定されたコンテンツの保管期限に関する情報を判定することで指定されたコンテンツデータを配信装置から自動的に受信して前記保存部に保存させることを特徴とする請求項 2 または 3 記載のコンテンツ受信装置。

【請求項 5】

前記指定部は、指定されたコンテンツの保存を指示するとともに、前記判定部は、配信装置における指定されたコンテンツの保管期限が確認できたとき、保存が指示されたコンテンツデータの配信装置からの受信および前記保存部への保存を保留して指定されたコンテンツの次回指定を容易にするための情報を前記記憶部に記憶させることを特徴とする請求項 2 から 4 のいずれかに記載のコンテンツ受信装置。

【請求項 6】

保存が指示されたコンテンツの利用を指示する操作部と、前記操作部の操作に応じ前記記憶部の記憶情報に基づいて受信保留していたコンテンツデータを配信装置から受信する受信実行部とを有すること特徴とする請求項 5 記載のコンテンツ受信装置。

【請求項 7】

前記判定部は、配信装置における保存が指示されたコンテンツの保管期限に関する情報に基づき受信保留していたコンテンツデータを配信装置から自動的に受信して前記保存部に保存させること特徴とする請求項 5 または 6 記載のコンテンツ受信装置。

【請求項 8】

前記コンテンツはデジタル動画コンテンツであり、配信装置はデジタル動画コンテンツデータの通信サーバであるとともに、デジタル動画コンテンツ鑑賞装置として構成されることを特徴とする請求項 1 から 7 のいずれかに記載のコンテンツ受信装置。

【請求項 9】

放送電波によるデジタル動画コンテンツを受信する放送受信部を有することを特徴とする請求項 8 記載のコンテンツ受信装置。

【請求項 10】

前記指定部は、前記放送受信部によって受信されるデジタル動画コンテンツからのリンクにより前記通信サーバから受信すべきデジタル動画コンテンツデータを指定することを特徴とする請求項 9 記載のコンテンツ受信装置。

【請求項 11】

電源スイッチを有し、前記記憶部は前記電源スイッチをオフする際にコンテンツを指定していた情報を記憶するとともに、前記電源スイッチが次回オンされた際に前記指定部は前記記憶部の記憶情報に基づいてコンテンツを自動指定することを特徴とする請求項 1 から 10 のいずれかに記載のコンテンツ受信装置。

【請求項 12】

コンテンツの指定に関与しない操作部と、前記操作部の操作に基づき配信装置との常時通信状態を確立する通信制御部とを有すること特徴とする請求項 1 から 11 のいずれかに

記載のコンテンツ受信装置。

【請求項 13】

電源スイッチと、前記電源スイッチをオフする際にデジタル動画コンテンツを指定していた情報を記憶する記憶部と、前記電源スイッチが次回オンされた際に前記記憶部の記憶情報に基づいてデジタル動画コンテンツを自動指定する指定部と、前記指定部によって指定されたデジタル動画コンテンツを通信サーバから受信する通信部と、前記通信部が受信したデジタル動画コンテンツを表示する表示部とを有することを特徴とするコンテンツ受信装置。

【請求項 14】

前記記憶部が記憶している情報が通信サーバによって決定されるスケジュールでストリーミング配信されるデジタル動画コンテンツであるとき、前記指定部は指定時点での配信部分からのデジタル動画コンテンツを自動指定することを特徴とする請求項 13 記載のコンテンツ受信装置。

【請求項 15】

前記記憶部は、前記電源スイッチをオフする際に指定していたストリーミング配信されるデジタル動画コンテンツの部分データに関する情報を記憶することを特徴とする請求項 13 または 14 記載のコンテンツ受信装置。

【請求項 16】

前記記憶部が記憶している情報がストリーミング配信されるデジタル動画コンテンツの部分データであるとき、前記指定部は前記記憶部が記憶している部分データに継続する部分からのデジタル動画コンテンツを自動指定することを特徴とする請求項 13 から 15 のいずれかに記載のコンテンツ受信装置。

【請求項 17】

放送電波によるデジタル動画コンテンツを受信する放送受信部と、通信サーバからデジタル動画コンテンツを受信する通信部と、前記放送受信部および前記通信部のいずれから受信したデジタル動画コンテンツであってもこれを表示可能な表示部と、前記放送受信部による受信するデジタル動画コンテンツに関する操作を行う操作部と、前記操作部の操作に基づき通信サーバとの常時通信状態を確立する通信制御部とを有すること特徴とするコンテンツ受信装置。

【請求項 18】

前記操作部は、前記放送受信部によりデジタル動画コンテンツを受信するための電源スイッチであることを特徴とする請求項 17 記載のコンテンツ受信装置。

【請求項 19】

前記操作部は、前記放送受信部により受信可能な複数のデジタル動画コンテンツの一つを選択するための選択手段であることを特徴とする請求項 17 または 18 記載のコンテンツ受信装置。

【請求項 20】

前記操作部は、前記放送受信部により受信するデジタル動画コンテンツの保存の指示手段であることを特徴とする請求項 17 から 19 のいずれかに記載のコンテンツ受信装置。

【請求項 21】

前記操作部は、前記放送受信部により受信するデジタル動画コンテンツの部分を選択するための選択手段であることを特徴とする請求項 17 から 20 のいずれか記載のコンテンツ受信装置。

【請求項 22】

放送電波によるデジタル動画コンテンツを受信する放送受信部と、通信サーバからデジタル動画コンテンツを受信する通信部と、前記放送受信部および前記通信部のいずれから受信したデジタル動画コンテンツであってもこれを表示可能な表示部と、前記放送受信部によって受信されるデジタル動画コンテンツからのリンクにより前記通信サーバから受信すべきデジタル動画コンテンツデータを指定する指定部とを有することを特徴とするコンテンツ受信装置。

【請求項 2 3】

前記指定部は、前記放送受信部によって受信されるデジタル動画コンテンツからのリンクにより前記通信サーバから受信すべきデジタル動画コンテンツデータの冒頭部を指定することを特徴とする請求項 2 2 記載のコンテンツ受信装置。

【請求項 2 4】

前記通信サーバから受信すべきデジタル動画コンテンツデータの鑑賞開始部の選択を行う選択操作部を有し、前記指定部は前記選択操作部の操作を可能とすることを特徴とする請求項 2 2 または 2 3 記載のコンテンツ受信装置。

【請求項 2 5】

前記指定部による指定に基づき、前記通信サーバから受信すべきデジタル動画コンテンツデータの冒頭部の指定に必要な情報を記憶する記憶部を有することを特徴とする請求項 2 2 から 2 4 のいずれかに記載のコンテンツ受信装置。

【請求項 2 6】

前記指定部による指定に基づき、前記通信サーバからデジタル動画コンテンツデータを受信する受信実行部を有することを特徴とする請求項 2 2 から 2 5 のいずれかに記載のコンテンツ受信装置。

【請求項 2 7】

前記受信実行部によって受信されるデジタル動画コンテンツデータを保存する保存部を有することを特徴とする請求項 2 6 記載のコンテンツ受信装置。

【請求項 2 8】

外部から決められたスケジュールに従って受信する所定のデジタル動画コンテンツを表示する表示部と、前記表示部に現に表示されているデジタル動画コンテンツからのリンクによりそのデジタル動画コンテンツの別の部分を指定する指定部と、前記指定部によって指定されたデジタル動画コンテンツの別の部分を通信サーバから受信する通信部とを有することを特徴とするコンテンツ受信装置。

【請求項 2 9】

前記表示部が表示するデジタル動画コンテンツは放送電波により受信されることを特徴とする請求項 2 8 記載のコンテンツ受信装置。

【請求項 3 0】

前記表示部が表示するデジタル動画コンテンツは通信サーバから受信されることを特徴とする請求項 2 8 または 2 9 記載のコンテンツ受信装置。

【請求項 3 1】

前記表示部は前記通信部が受信するデジタル動画コンテンツの別の部分を前記表示していた部分に換えて表示することを特徴とする請求項 2 9 または 3 0 記載のコンテンツ受信装置。

【請求項 3 2】

前記通信部が受信するデジタル動画コンテンツの別の部分を保存する保存部を有することを特徴とする請求項 2 9 から 3 1 のいずれかに記載のコンテンツ受信装置。

【請求項 3 3】

放送電波によって放送されているデジタル動画コンテンツとの対応関係を示す対応情報を付与して同じデジタル動画コンテンツのデータを保管する保管部と、通信部と、前記通信部を介して前記対応情報が指定されたとき前記通信部を介して前記保管部が保管するデジタル動画コンテンツを配信する制御部とを有することを特徴とするコンテンツ配信装置。

【請求項 3 4】

前記保管部は、前記通信部を介して確認可能なよう、前記デジタル動画コンテンツのデータにその保管に関する保管情報を付与して保管することを特徴とする請求項 3 3 記載のコンテンツ配信装置。

【請求項 3 5】

通信サーバより受信する動画コンテンツを指定する指定部と、予め決められたスケジュー

ールに従ってストリーミング配信されるデジタル動画コンテンツが前記指定部によって配信時間内に指定されたときは指定時点において配信されているその動画コンテンツの packets データを自動受信する通信部と、前記通信部が受信した packets データに基づいて動画コンテンツを表示する表示部とを有することを特徴とするコンテンツ受信装置。

【請求項 36】

前記指定部が配信時間外に動画コンテンツを指定したとき、前記通信部は指定に従った packets データを受信することを特徴とする請求項 35 記載のコンテンツ受信装置。

【請求項 37】

前記指定部が配信時間外に動画コンテンツを指定したとき、前記通信部は動画コンテンツ冒頭の packets データを自動受信することを特徴とする請求項 35 または 36 記載のコンテンツ受信装置。

【請求項 38】

デジタル動画コンテンツのデータを保管する保管部と、予め決められたスケジュールに従った配信時間内に前記保管部に保管されているデジタル動画コンテンツが指定されたときにはスケジュールに従って packets データをストリーミング配信するとともに配信時間外に同じデジタル動画コンテンツが指定されたときには指定に従ってデジタル動画コンテンツを配信する通信部とを有することを特徴とするコンテンツ配信装置。

【請求項 39】

デジタル動画コンテンツのデータを保管する保管部と、予め決められたスケジュールに従った配信時間内に前記保管部に保管されているデジタル動画コンテンツが指定されたときにはスケジュールに従って packets データをストリーミング配信するとともに配信時間外に同じデジタル動画コンテンツが指定されたときには動画コンテンツ冒頭の packets データからストリーミング配信する通信部とを有することを特徴とするコンテンツ配信装置。

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【書類名】明細書

【発明の名称】コンテンツの受信装置および配信装置

【技術分野】

【0001】

本発明は、コンテンツの受信装置および配信装置に関する。

【背景技術】

【0002】

コンテンツの代表例は動画コンテンツであり、その受信装置および配信装置の代表例はテレビおよびテレビ局である。テレビ局から放送電波によって配信される動画コンテンツとしての放送番組は、これをテレビで受信してリアルタイムで鑑賞する場合の他、ビデオレコーダ等により放送番組を録画した後に鑑賞することも従来から広く行われている。また、録画装置については、従来からのビデオテープレコーダだけでなくDVDなどのディスクタイプのデジタル記憶媒体への録画や大容量のハードディスクへの録画など多種多様な録画手段が一般化している。

【0003】

一方、近年、いわゆるサーバ型放送の実用化も進み、インターネット経由で番組配信サーバからダウンロードした動画コンテンツデータを解凍再生することにより動画番組を鑑賞することも可能となっている。さらに、インターネット経由のストリーミング配信によってほぼリアルタイムで動画コンテンツを観賞することも一般化している。

【0004】

このように、コンテンツの受信装置においては従来のテレビやビデオレコーダの枠を超えた種々の機器やシステムがユーザに提案されてきた。

さらに、機器やシステムの提案だけでなく、コンテンツの記憶容量の増加や機能の多様化により従来は不可能であったコンテンツの楽しみ方も提案されている。

【0005】

しかしながら、機能の多様化は装置の使用法を複雑にするだけで、必ずしもユーザにとって使いやすいものとはならず、特に装置に慣れないユーザにとっては逆に使用に戸惑う装置となってしまっていた。

【特許文献1】特開2006-319955号広報

【特許文献2】特開2001-285743号広報

【発明の開示】

【発明が解決しようとする課題】

【0006】

本発明が解決しようとする課題は、上記に鑑み、真にユーザが使いやすくより生活を豊かにすることができるコンテンツの受信装置およびこれと連携するコンテンツの配信装置を提供することにある。

【課題を解決するための手段】

【0007】

上記の課題を解決するため本発明は、所望のコンテンツを指定する指定部と、指定されたコンテンツの次回指定を容易にするための情報を記憶する記憶部と、配信装置における指定されたコンテンツの保管に関する情報に基づき指定されたコンテンツデータを配信装置から自動的に受信して保存する保存部を有するコンテンツ受信装置を提供する。これによって、コンテンツデータの無用な受信と保存を省略することができるとともに、次回コンテンツにアクセスしたとき既にそのコンテンツが削除されていたりするような事態に対処することができる。

【0008】

本発明の具体的な特徴によれば、配信装置における指定されたコンテンツの保管に関する情報を判定する判定部がコンテンツ受信装置に設けられる。さらに具体的な特徴によれば、この判定部は、配信装置における指定されたコンテンツの保管に関する情報が確認できないとき指定されたコンテンツデータを配信装置から自動的に受信して前記保存部に保

存させる。これによって、配信装置におけるコンテンツデータの将来の保管状況が不明なときは、コンテンツデータの受信と保存を実行し、これを受信装置側で保存することができる。また別の具体的な特徴によれば、判定部は、配信装置における指定されたコンテンツの保管期限に関する情報を判定することで指定されたコンテンツデータを配信装置から自動的に受信して前記保存部に保存させる。これによって、配信装置におけるコンテンツデータの保管期間が満了する前にコンテンツデータの受信と保存を実行し、これを受信装置側で保存することができる。

【0009】

本発明の他の具体的な特徴によれば、指定部は、指定されたコンテンツの保存を指示するとともに、判定部は、配信装置における指定されたコンテンツの保管期限が確認できたとき、保存が指示されたコンテンツデータの配信装置からの受信および前記保存部への保存を保留して指定されたコンテンツの次回指定を容易にするための情報を前記記憶部に記憶させる。これによって、受信装置へのコンテンツデータの受信と保存を実際に行わなくても、必要時に受信装置は容易かつ確実にコンテンツデータを利用することができ、見かけ上はコンテンツデータを受信装置側で保存したのと同等の結果を得ることができる。

【0010】

本発明の他の具体的な特徴によれば、保存が指示されたコンテンツの利用を指示する操作部と、前記操作部の操作に応じ前記記憶部の記憶情報に基づいて受信保留していたコンテンツデータを配信装置から受信する受信実行部がコンテンツ受信装置に設けられる。これによって、受信装置自身コンテンツデータを保存しなくても、利用時に容易かつ確実にコンテンツデータを確保することができ、見かけ上はコンテンツデータを受信装置側で保存したのと同等の結果を得ることができる。

【0011】

本発明のさらに具体的な特徴によれば、判定部は、配信装置における保存が指示されたコンテンツの保管期限に関する情報に基づき受信保留していたコンテンツデータを配信装置から自動的に受信して前記保存部に保存させる。これによって、配信装置におけるコンテンツデータの保管期間が満了する前にコンテンツデータの受信と保存を実行し、これを受信装置側で確保しておくことができる。

【0012】

本発明の好適な実施態様の例は、コンテンツがデジタル動画コンテンツであり、コンテンツ配信装置がデジタル動画コンテンツデータの通信サーバであるとともに、コンテンツ受信装置がデジタル動画コンテンツ鑑賞装置として構成される場合である。この場合のさらに具体的な実施態様では、放送電波によるデジタル動画コンテンツを受信する放送受信部がデジタル動画コンテンツ観賞装置に設けられる。そしてさらに具体的実施態様では、指定部は、放送受信部によって受信されるデジタル動画コンテンツからのリンクにより通信サーバから受信すべきデジタル動画コンテンツデータを指定する。

【0013】

本発明の他の特徴によれば、電源スイッチと、電源スイッチをオフする際にデジタル動画コンテンツを指定していた情報を記憶する記憶部と、電源スイッチが次回オンされた際に記憶部の記憶情報に基づいてデジタル動画コンテンツを自動指定する指定部と、指定部によって指定されたデジタル動画コンテンツを通信サーバから受信する通信部と、通信部が受信したデジタル動画コンテンツを表示する表示部とを有するコンテンツ受信装置が提供される。これによって、通信サーバからデジタル動画コンテンツを受信して表示部で観賞するにもかかわらず、電源スイッチのオンだけで前回電源をオフした際に指定していたデジタル動画コンテンツの観賞を容易に再開することができる。

【0014】

上記本発明の具体的な特徴によれば、記憶部が記憶している情報が通信サーバによって決定されるスケジュールでストリーミング配信されるデジタル動画コンテンツであるとき、指定部は指定時点での配信部分からのデジタル動画コンテンツを自動指定する。これによって、通信サーバからデジタル動画コンテンツを受信して表示部で観賞するにもかかわらず

らず、電源スイッチのオンだけで通常のテレビ放送を観賞する場合のように、前回電源スイッチをオフしたときに指定していた通信サーバがスケジュールに従って配信しているデジタル動画コンテンツの表示が開始する。

【0015】

上記本発明の他の具体的な特徴によれば、記憶部は、電源スイッチをオフする際に指定していたストリーミング配信されるデジタル動画コンテンツの部分データに関する情報を記憶する。そしてより具体的には、記憶部が記憶している情報がストリーミング配信されるデジタル動画コンテンツの部分データであるとき、指定部は記憶部が記憶している部分データに継続する部分からのデジタル動画コンテンツを自動指定する。これによって、通信サーバからデジタル動画コンテンツを受信して表示部で観賞するにもかかわらず、電源スイッチのオンだけで、前回電源スイッチをオフしたときに中断させたデジタル動画コンテンツの表示が中断箇所から再開する。

【0016】

本発明の他の特徴によれば、放送電波によるデジタル動画コンテンツを受信する放送受信部と、通信サーバからデジタル動画コンテンツを受信する通信部と、放送受信部および通信部のいずれから受信したデジタル動画コンテンツであってもこれを表示可能な表示部と、放送受信部による受信するデジタル動画コンテンツに関する操作を行う操作部と、前記操作部の操作に基づき通信サーバとの常時通信状態を確立する通信制御部とを有すること特徴とするコンテンツ受信装置が提供される。このように、通信部から受信するデジタル動画コンテンツの指定に関与しない操作部の操作に基づき通信サーバとの常時通信状態を確立しておくことによって、放送受信部によるデジタル動画コンテンツから通信部によるデジタル動画コンテンツへの表示部の切替を速やかに行うことができる。従って、通信部によるデジタル動画コンテンツについても、通常の放送のチャンネル選択と同様の利便性で選択することができる。

【0017】

上記本発明における操作部の例は、放送受信部によりデジタル動画コンテンツを受信するための電源スイッチ、放送受信部により受信可能な複数のデジタル動画コンテンツの一つを選択するための選択手段、放送受信部により受信するデジタル動画コンテンツの保存の指示手段、放送受信部により受信するデジタル動画コンテンツの部分を選択するための選択手段などである。

【0018】

本発明の他の特徴によれば、放送電波によるデジタル動画コンテンツを受信する放送受信部と、通信サーバからデジタル動画コンテンツを受信する通信部と、放送受信部および通信部のいずれから受信したデジタル動画コンテンツであってもこれを表示可能な表示部と、放送受信部によって受信されるデジタル動画コンテンツからのリンクにより通信サーバから受信すべきデジタル動画コンテンツデータを指定する指定部とを有するコンテンツ受信装置が提供される。これによって、放送電波によって受信されるデジタル動画コンテンツを偶然途中から見て関心を持ったときなど、そこからのリンクで対応するデジタル動画コンテンツを指定し、見逃した箇所などを観賞することができる。

【0019】

上記本発明の具体的な特徴によれば、指定部は、放送受信部によって受信されるデジタル動画コンテンツからのリンクにより通信サーバから受信すべきデジタル動画コンテンツデータの冒頭部を指定する。これによって、途中から関心を持ったデジタル動画コンテンツを冒頭から観賞することが可能となる。上記本発明の他の具体的な特徴によれば、通信サーバから受信すべきデジタル動画コンテンツデータの鑑賞開始部の選択を行う選択操作部がコンテンツ受信装置に設けられ、指定部は選択操作部の操作を可能とする。これによって、途中から関心を持ったデジタル動画コンテンツの任意の箇所を選択して観賞することが可能となる。

【0020】

上記本発明の他の具体的な特徴によれば、指定部による指定に基づき、通信サーバから

受信すべきデジタル動画コンテンツデータの冒頭部の指定に必要な情報を記憶する記憶部がコンテンツ受信装置に設けられる。そのデジタル動画コンテンツが通信サーバに保管されていることが保証されている限り、この記憶情報に基づいて後日そのデジタル動画コンテンツを指定して観賞することが可能なので、デジタル動画コンテンツ自体を受信して保存しなくても関心を持ったデジタル動画コンテンツを実質的に「録画」したのと同等の結果をえることができる。

【0021】

一方、上記本発明の他の具体的な特徴によれば、指定部による指定に基づき、通信サーバからデジタル動画コンテンツデータを受信する受信実行部がコンテンツ受信装置に設けられる。そしてさらに具体的な特徴によれば、受信実行部によって受信されるデジタル動画コンテンツデータを保存する保存部がコンテンツ受信装置に設けられる。このようにして途中から関心を持ったデジタル動画コンテンツであっても、そのデジタル動画コンテンツデータ全体を「録画」することが可能となる。

【0022】

本発明の他の特徴によれば、外部から決められたスケジュールに従って受信する所定のデジタル動画コンテンツを表示する表示部と、前記表示部に現に表示されているデジタル動画コンテンツからのリンクによりそのデジタル動画コンテンツの別の部分を指定する指定部と、前記指定部によって指定されたデジタル動画コンテンツの別の部分を通信サーバから受信する通信部とを有するコンテンツ受信装置が提供される。これによって、外部から決められたスケジュールに従って受信する所定のデジタル動画コンテンツを偶然途中から見て関心を持ったときなど、そこからのリンクでそのデジタル動画コンテンツの別の部分を指定し、見逃した箇所などを観賞することができる。

【0023】

上記本発明の具体的な特徴によれば、外部から決められたスケジュールに従って受信する所定のデジタル動画コンテンツは、放送電波により受信される。一方、他の具体的な特徴によれば、外部から決められたスケジュールに従って受信する所定のデジタル動画コンテンツは、通信サーバから受信される。また、他の具体的な特徴によれば、表示部は通信部が受信するデジタル動画コンテンツの別の部分を表示していた部分に換えて表示することで、任意の部分の観賞が可能となる。一方、さらに他の具体的特長によれば、通信部が受信するデジタル動画コンテンツの別の部分を保存する保存部がコンテンツ受信装置に設けられ、後日の観賞を可能とする。

【0024】

本発明の他の特徴によれば、放送電波によって放送されているデジタル動画コンテンツとの対応関係を示す対応情報を付与して同じデジタル動画コンテンツのデータを保管する保管部と、通信部と、この通信部を介して対応情報が指定されたとき通信部を介して保管部が保管するデジタル動画コンテンツを配信する制御部とを有するコンテンツ配信装置が提供される。これによって、コンテンツ受信装置からの要求に応え、放送電波によって放送されているデジタル動画コンテンツに対応するデジタル動画コンテンツのデータを配信することができる。

【0025】

上記本発明の具体的な特徴によれば、保管部は、通信部を介して確認可能なよう、デジタル動画コンテンツのデータにその保管に関する保管情報を付与して保管する。これによって、デジタル動画コンテンツの利用の際のコンテンツ受信装置との連携が可能となり、コンテンツ受信装置からデジタル動画コンテンツの要求があったときにコンテンツ配信装置側ですでにそのデジタル動画コンテンツを削除してしまっていたというような齟齬を防止することができる。

【0026】

本発明の他の特徴によれば、通信サーバより受信する動画コンテンツを指定する指定部と、予め決められたスケジュールに従ってストリーミング配信されるデジタル動画コンテンツが指定部によって配信時間内に指定されたときは指定時点において配信されているそ

の動画コンテンツのパケットデータを自動受信する通信部と、通信部が受信したパケットデータに基づいて動画コンテンツを表示する表示部とを有するコンテンツ受信装置が提供される。これによって、これによって、通信サーバからデジタル動画コンテンツを受信して表示部で観賞するにもかかわらず、通常のテレビ放送を観賞する場合のように、通信サーバがスケジュールに従って配信しているデジタル動画コンテンツの表示が開始する。

【0027】

上記本発明の具体的な特徴によれば、指定部が配信時間外に動画コンテンツを指定したとき、前記通信部は指定に従ったパケットデータを受信する。これによって、上記のような予め決められたスケジュールに従う動画コンテンツの配信だけでなく、任意のタイミングで任意の部分からの観賞も可能となる。一方、他の具体的な特徴によれば、指定部が配信時間外に動画コンテンツを指定したとき、通信部は動画コンテンツ冒頭のパケットデータを自動受信する。これによって、動画コンテンツの指定という簡単な操作だけで、上記のような予め決められたスケジュールに従う動画コンテンツの配信だけでなく、任意のタイミングで動画コンテンツを冒頭から観賞することが可能となる。

【0028】

本発明の他の特徴によれば、デジタル動画コンテンツのデータを保管する保管部と、予め決められたスケジュールに従った配信時間内に前記保管部に保管されているデジタル動画コンテンツが指定されたときにはスケジュールに従ってパケットデータをストリーミング配信するとともに配信時間外に同じデジタル動画コンテンツが指定されたときには指定に従ってデジタル動画コンテンツを配信する通信部とを有するコンテンツ配信装置が提供される。一方、本発明のさらに他の特徴によれば、デジタル動画コンテンツのデータを保管する保管部と、予め決められたスケジュールに従った配信時間内に前記保管部に保管されているデジタル動画コンテンツが指定されたときにはスケジュールに従ってパケットデータをストリーミング配信するとともに配信時間外に同じデジタル動画コンテンツが指定されたときには動画コンテンツ冒頭のパケットデータからストリーミング配信する通信部とを有するコンテンツ配信装置が提供される。これらの特徴によって、コンテンツ受信装置からデジタル動画コンテンツの要求に応じたデジタル動画コンテンツの配信が可能となり、コンテンツ配信装置とコンテンツ受信装置とを適切に連携させるとともにコンテンツ受信装置の操作を容易とすることができる。

【実施例】

【0029】

図1は、本発明におけるコンテンツの受信装置および配信装置の実施例に関するシステム全体を示すブロックであり、テレビとテレビ局を含む動画コンテンツデータ鑑賞システムを構成している。テレビ2は、デジタル放送電波4によってテレビ局5からの通常デジタル放送動画コンテンツを受信する放送受信部6を有する。テレビ2は、さらにインターネット8を経由してサーバ型テレビ局9から動画コンテンツデータの供給を受けるコンピュータ10を有する。コンピュータ10は制御部12、記憶部14、および入出力部16を有している。入出力部16はインターネット8を経由してサーバ型テレビ局9のデータベース32が保管している動画コンテンツデータの供給を受けるための通信部の役割を持っている。記憶部14は制御部12を動作させるためのプログラムを記憶するとともに、サーバ型テレビ局9から入出力部16を介してダウンロードされた動画コンテンツデータなどのデータ記憶も行う。この記憶部14は、ハードディスクを有する大容量のものであり、相当数の動画コンテンツデータを記憶することが可能である。

【0030】

入出力部16は、さらにリモコン18からの赤外線信号20を受信するリモコン受信部22からの操作信号を入力し、制御部12に所定のコンピュータ動作を行わせる。リモコン18はテレビの電源オンオフ、放送チャンネル切替操作、音量調節操作などを行う。また、リモコン18はテレビ画面26と連携するGUIによって、テレビ画面26に表示される各種ボタンの操作やテレビ画面26に表示される一覧からの選択操作などを行う。リモコン受信部22が受信する操作信号は、必要に応じて放送受信部6にも直接伝えられる。

。放送受信部6は上記のように通常のテレビ局5からデジタル放送電波4を受信しているが、リモコン受信部18からの操作信号に基づいて放送チャンネルの選局等を行う。

【0031】

表示制御部24は放送受信部6からの信号に基づいて、放送受信部6からの通常デジタル放送動画コンテンツをテレビ画面26に表示する。表示制御部24はさらにコンピュータ10の制御部12の制御を受け、入出力部16を経由して表示記憶部28から出力されるコンピュータ表示信号をテレビ画面26に表示する。このコンピュータ表示信号は、リモコン18と共同するGUI表示として通常デジタル放送動画コンテンツの表示の一部に重畳してテレビ画面26に表示される。また、操作メニューや番組表等のように、テレビ画面26に表示されるものがすべて表示記憶部28からのコンピュータ表示信号である場合もある。なお、放送受信部6が受信したデジタル放送動画コンテンツはコンピュータ10の入出力部16にも送られ、リモコン18の操作により「録画」として記憶部14に記憶することが可能である。

【0032】

一方、インターネット8を経由してサーバ型テレビ局9から供給され、記憶部14に記憶された動画コンテンツデータは、制御部12の制御により動画データに変換され、入出力部16を経由して表示記憶部28から出力される。そして、表示制御部24が制御部12の制御により放送受信部6からの動画データに代えて表示記憶部28からの動画データを選択した時は、サーバ型テレビ局9からインターネット8を経由して供給された動画コンテンツデータがテレビ画面26に表示されることになる。なお、この場合、ストリーミングによりインターネット8を経由して供給されるオンデマンドまたはライブの動画コンテンツデータをリアルタイムでテレビ画面26に表示することもできる。ストリーミングによりインターネット8を経由して供給され、テレビ画面26でリアルタイムに表示可能な動画コンテンツとしては、以上のものの他、サーバ型テレビ局9が独自にスケジューリングする番組表に基づいて配信する動画コンテンツデータもある。

【0033】

このようにして本発明の実施例である図1のテレビ2は、デジタル放送電波4によってテレビ局5からの受信する通常デジタル放送動画コンテンツおよびインターネット8を経由してサーバ型テレビ局9からダウンロードされた動画コンテンツデータのいずれもが鑑賞できるようになっている。本発明の実施例は、さらに、通常デジタル放送電波による動画コンテンツとインターネット経由でダウンロードされた動画コンテンツデータとの選択が可能であるだけでなく、これらを結合した鑑賞が可能となっているものである。その詳細は以下のフローチャートに基づいて説明する。なお、このような機能の達成のためには、サーバ型テレビ局9の放送局制御部30も関与しているが、その詳細については後述する。

【0034】

テレビ画面26で観賞可能な動画コンテンツとしては、上記のようなテレビ局5からの通常デジタル放送動画コンテンツおよびサーバ型テレビ局9からダウンロードされる動画コンテンツデータの外、インターネット8を経由してストリーミングによって供給されるリアルタイム放送動画コンテンツがある。このようなストリーミングによるリアルタイム放送動画コンテンツについても、これがテレビ局5からの放送に準じてサーバ型テレビ局9からインターネット経由で番組表に従って定常的に供給される環境が整っている場合には、そのような動画コンテンツをダウンロードするためのURLも放送チャンネルの一つと考えるものとする。

【0035】

1のコンピュータ10における制御部12の動作を示す基本フローチャートであり、テレビ2が電源コンセントに接続されることによりスタートする。まずステップS2では、電源オン操作がなされたかどうかチェックされ、その検出がなければステップS2のチェックを繰り返して電源オン操作を待つ。ここで「電源オン操作」とはいわゆるメインスイッチをオンする操作などを想定し、使用者としてテレビ2の電源を日常的にオンオフす

ると認識している操作を広義に意味している。通常、このような「電源オン操作」は、リモコン 18 の操作を受け付けるためにテレビ 2 を常時待機状態に置くための電源スイッチがオンになっている状態においてリモコン 18 のメインスイッチをオンする場合等に相当する。従って、本明細書の記載における「電源オン」および「電源オフ」は、テレビ 2 を待機状態にするかどうかを切替える電源スイッチのオンオフに狭義に限定して解釈すべきものではなく、リモコン等のメインスイッチのオンオフ等をも含む広義のものとして理解すべきである。

【0036】

さて、ステップ S で電源オン操作が検出されるとステップ S 4 に進み、テレビ 2 が電源コンセントに接続されてから後に電源をオフした履歴が記憶部 14 に記録されているかどうかをチェックする。そして電源オフ履歴があればステップ S 6 に進み、前回電源をオフした際の直前状態の記録を呼び出す。

【0037】

次いでステップ S 8 では、呼出した直前状態が放送観賞状態であるかどうかチェックし、該当すればステップ S 10 に進んで、オフ直前の放送チャンネルを呼び出す。これは、前回電源をオフした際に観賞していたチャンネルが次の電源オンの際にも最も関心の高い「チャンネル」とであると看做しての処理である。なお、このチャンネルには、上記のようにインターネット 8 経由で入出力部 16 に入力されるストリーミングによるリアルタイム放送をダウンロードするための URL も含まれるものとする。このような場合に対応するため、次のステップ S 11 でコンピュータ 10 をインターネット 8 に常時接続状態にする。

【0038】

次いでステップ S 12 に進み、動画コンテンツ表示を開始するための指示が表示制御部に出される。この場合、ステップ S 10 で呼び出されたチャンネルにおいて現在放送されている動画コンテンツの表示が開始される。図 1 には簡単のため制御線を図示していないが、上記の機能のため、放送受信部 6 はおよび入出力部は、それぞれ表示すべきチャンネルの動画コンテンツを表示制御部 24 に出力するため、制御部 12 の制御を受けている。

【0039】

一方、ステップ S 8 において直前状態が放送でなければステップ S 14 に進み、記憶部 14 の動画コンテンツデータの再生が中断中の状態で電源がオフされたのかどうかをチェックする。そして該当すればステップ S 16 に進み、直前の電源オフにおいて再生を中断した動画コンテンツデータの録画情報を読み出す。そしてステップ S 18 でその動画コンテンツデータの再生を中断した際の停止箇所からの再開を指示する。この後ステップ S 12 に移行し、動画コンテンツ表示を開始する指示を表示制御部に出す。これによって再生を中断した動画コンテンツデータの停止箇所からの再生が再開することになる。この動作はステップ S 2 において検出された電源オン操作に続いて自動的に行われるため、使用者は再生を中断して電源をオフしていた場合、電源をオンするだけで停止箇所からの動画コンテンツ鑑賞を継続することができる。

【0040】

これに対し、ステップ S 14 において再生中断中でなかった場合は、再生を終了して電源をオフしたことを意味するので、次に電源をオンしたときに再生を再開すべき動画コンテンツデータは存在しない。従ってステップ S 10 に進み、動画コンテンツデータ再生直前に観賞して電源オフした放送チャンネルを呼び出してステップ S 12 に進む。また、ステップ S 4 において電源オフ履歴がなかった場合は、ステップ S 20 に進み、予め定められたチャンネルを設定してステップ S 12 に移行する。これはステップ S 20 においてなんらかのチャンネルを設定しておかないとステップ S 12 で表示を開始すべきチャンネルが不定となってしまうからである。なお、ステップ S 20 で設定されるべき所定放送チャンネルは通常放送チャンネルであり、任意に選んでおくこともできるし、このような選択がなければデフォルトのチャンネルが採用される。

【0041】

ステップ S 12 で動画コンテンツ表示開始指示が行われると、その動画コンテンツの表

示を維持したままステップS 2 2に進みチャンネル切換操作があったかどうかチェックする。そして該当すればステップS 2 4のチャンネル切換処理を行いステップS 2 6に移行する。ステップS 2 4のチャンネル切換は、通常放送観賞から記憶部1 4に記憶されている動画コンテンツ再生への切換も含む。ステップS 2 4のチャンネル切換処理については後述する。一方、ステップS 2 2でチャンネル切換操作が検出されなければ直接ステップS 2 6に移行する。

【0042】

ステップS 2 6では、現在表示されている動画コンテンツを任意箇所から観賞するための操作が行われたかどうかチェックする。この任意箇所からの観賞とは動画コンテンツ冒頭からの観賞も含まれる。そしてこのような任意箇所観賞操作が検出された時はステップS 2 8に進み操作によって選ばれた任意箇所観賞処理を行う。任意箇所観賞操作は、主にテレビ局5からの通常デジタル放送動画やサーバ型テレビ局9からのストリーミングによるリアルタイム放送が、電源オンまたはチャンネル切換によって、テレビ画面2 6に表示されたときに行われるものである。つまり、特に観賞する動画コンテンツのあてなしにテレビ2の電源をオンするかチャンネルを切換えることで遭遇した放送途中の動画コンテンツに興味を覚え、これを今すぐ任意箇所から見たいと思った時に任意箇所観賞操作が行われることを想定している。ステップS 2 8の任意箇所観賞処理の詳細は後述する。

【0043】

ステップS 2 6で任意箇所観賞操作が検出されなかったときはステップS 3 0に移行し、録画操作が行われたかどうかチェックする。そしてこのような録画処理が検出された時はステップS 3 2に進み録画処理を行う。ステップS 3 0の録画処理では、録画操作を行った時点からの動画コンテンツの録画ではなく、通常はその動画コンテンツの冒頭から終了までの全内容が録画される。ステップS 3 2の録画処理の詳細についても後述する。録画処理も、主に通常デジタル放送動画やストリーミングによるリアルタイム放送が、電源オンまたはチャンネル切換によって、テレビ画面2 6に表示されたときに行われるものである。つまり、特に観賞する動画コンテンツのあてなしにテレビ2の電源をオンするかチャンネルを切換えることで遭遇した放送途中の動画コンテンツに興味を覚え、これを録画しておいて後で冒頭から見たいと思った時に録画操作が行われることを想定している。

【0044】

ステップS 3 0で録画操作が検出されなかった時はステップS 3 4に移行し、電源オフ操作が行われたかどうかチェックする。そして操作が検出されるとステップS 3 6に進み、録画管理処理を行う。その内容については後述する。そしてステップS 3 8に進み、電源オフ操作の直前の状態を記憶した上で電源オフを実行し、ステップS 2に戻る。このステップS 3 8における直前状態の記憶処理により、上記のステップS 4からステップS 1 0およびステップS 1 4からステップS 1 8における各種のチェックや処理が可能となる。

【0045】

一方、ステップS 3 4で電源オフ操作が検出されない場合はステップS 2 2に戻る。そしてステップS 2 6における任意箇所観賞操作、ステップS 3 0における録画操作、およびステップS 3 4における電源オフ操作が検出されない限り、ステップS 2 2からステップS 3 4を繰り返し、チャンネル切換操作や任意箇所観賞操作、並びに録画操作に備える。そしてこれらの操作がなければ、その時点における動画コンテンツの表示が継続される。

【0046】

なお、ステップS 3 8からステップS 2に戻ると、次の電源オン操作を待つためにステップS 2を繰り返す動作に入り、ステップS 2で電源オン操作が検出されると、上記のようなステップS 4以下の動作に入る。なお、ステップS 2 8の任意箇所観賞処理およびステップS 3 2の録画処理はそれぞれその中に図2のフローチャートに戻るための処理を含んでいる。その詳細についても後述する。

【0047】

図3は、図2のステップS24におけるチャンネル切替処理の詳細を示すフローチャートである。フローがスタートすると、ステップS42でコンピュータ10がインターネット8に接続済みかどうかチェックする。そして接続済みでなければステップS44に進んでコンピュータ10をインターネット8に常時接続状態とし、ステップS46に移行する。これによって、チャンネル接続処理においてインターネット接続が必要となる状況に即対応できるようにする。一方、ステップS42で既にネット接続済みであることが検出されると直接ステップS46に移行する。

【0048】

ステップS46では、図2のステップS22で検出したチャンネル切替操作が通常放送チャンネル選択であったかどうかチェックされ、該当すればステップS48に進んで選択されたチャンネルを指定し、ステップS50に移行する。ステップS50では、その動画コンテンツの表示開始指示を指示してフローを終了する。この場合は、選択された通常放送チャンネルの放送の表示が開始されるが、見かけ上は通常のテレビでチャンネルを切替えたのと同じ動作となる。

【0049】

一方、図2のステップS22で検出したチャンネル切替操作が通常放送チャンネル選択であることがステップS46で検出されなかった場合は、ステップS52に移行する。ステップS52では、検出したチャンネル切替操作がサーバ型テレビ局9の選択であったかどうかチェックされ、該当すればステップS54に進んで選択されたサーバ型テレビ局9のURLを指定する。このURLはサーバ型テレビ局9において予め準備されている番組を直接指定するURLとする。そしてステップS56でそのURLにおいてライブ番組をストリーミング配信中かどうかチェックする。ステップS56でライブストリーミング配信中であることが検出されるとステップS58に進み、配信されているライブストリーミングの開始を指示してステップS50に移行し、フローを終了する。この場合、ステップS50では、ライブストリーミング配信されている動画コンテンツの現時点の映像からの表示が開始される。これも、見かけ上は通常のテレビで生放送を見る場合と同様の動作となる。

【0050】

また、ステップS54で指定されたURLがライブストリーミング配信中のものに該当しないことがステップS56で検出されたときは、ステップS60に移行する。ステップS60では、指定されたURLで準備されている動画コンテンツの冒頭からの再生を指示してステップS50に移行し、フローを終了する。この場合、ステップS50では、いつチャンネルを切替えても、動画コンテンツが冒頭から再生されることになり、その意味では録画再生と似た動作となるが、操作者が選んだ動画コンテンツではなく指定されたURL側においてお仕着せで準備されている動画コンテンツが表示開始される点では、番組編成表に基づいて行われる通常の放送と似ている。

【0051】

チャンネル切替操作がサーバ型テレビ局9の選択であることがステップS52で検出されなかった場合は、図2のステップS22で検出したチャンネル切替操作が、記憶部14の録画情報による動画コンテンツを指定して呼出す操作であったことを意味する。従って、この場合は、ステップS62に移行し、録画情報呼出処理を行う。その詳細は後述する。次いでステップS64では、呼出された録画情報が再生中断中の動画コンテンツデータであるかどうかチェックする。そして該当すればステップS66に進んでその動画コンテンツデータの再生を中断した際の停止箇所からの再生を指示してステップS50に移行し、フローを終了する。この場合は、チャンネル切替操作を行うだけで、前回再生を中断した動画コンテンツデータの再生中断箇所からの再生が自動的に再開する。

【0052】

これに対し、ステップS64において再生中断中であることが検出されなかった場合は、ステップS68に移行する。そして呼出した録画情報の動画コンテンツデータ冒頭からの再生を指示してステップS50に移行し、フローを終了する。この場合は、チャンネル

切換操作を行うだけで、呼出した録画情報の動画コンテンツデータ冒頭からの再生が自動的に開始される。これは見かけ上、ステップS 60からステップS 50に移行した場合と似ている。

【0053】

図4は、図2のステップS 28における任意箇所鑑賞処理の詳細を示すフローチャートである。フローがスタートすると、ステップS 72でコンピュータ10がインターネット8に接続済みかどうかチェックする。そして接続済みでなければステップS 74に進んでコンピュータ10をインターネット8に常時接続状態とし、ステップS 76に移行する。これによって、任意箇所鑑賞処理においてインターネット接続が必要となる状況に即対応できるようにする。一方、ステップS 72で既にネット接続済みであることが検出されると直接ステップS 76に移行する。

【0054】

ステップS 76では、図2のステップS 26で検出した任意箇所鑑賞操作が録画済コンテンツ再生中に行われたかどうかチェックされ、該当すればステップS 78に進んで録画済再生箇所選択処理が行われる。これは通常の録画済コンテンツの再生における再生箇所選択処理と同様のものであり、例えば画面を早送りしたり、飛ばしたり、またはチャプター分けされている動画コンテンツにおいて再生するチャプターの選択を可能にしたりする処理である。そしてこの処理により再生箇所の選択が終わるとステップS 80に移行し、選択された箇所からの動画コンテンツ表示開始を指示してフローを終了する。この機能は通常のビデオレコーダやDVDレコーダと同様のものである。

【0055】

一方、図2のステップS 26で検出された任意箇所鑑賞操作が録画済コンテンツ再生中に行われたものに該当することがステップS 76において検出されなかったときは、ステップS 82に移行し、図2のステップS 26で検出された任意箇所鑑賞操作が通常放送チャンネル選択中に行われたものかどうかチェックされる。そして、該当するときはステップS 84に進み、選択されている通常放送チャンネルで放送されている動画コンテンツに対応する動画コンテンツデータを配信するURLを指定する。さらにステップS 86では、その動画コンテンツデータがストリーミング配信可能なものであるかどうかをチェックし、該当すればステップS 88に進む。

【0056】

ステップS 88では、指定されたURLにおいてストリーミング配信可能な動画コンテンツを選択可能な再生開始パケット単位でテレビ画面26に表示開始し、そのうちの一つを選択する操作を促す。そしてこの表示を継続したままステップS 90に移行し、リモコン18とテレビ画面26とのGUIによってパケット選択操作が行われたかどうかチェックする。この結果パケット選択操作が検出されればステップS 92に進み、選択箇所のパケットを呼出してダウンロードし、ステップS 80に移行し、フローを終了する。この場合は、選択されたパケットがダウンロードされ次第、その箇所からのストリーミング再生が始まる。これによって、通常放送チャンネルを選択してそのとき関心を持った動画コンテンツについて任意の箇所からの鑑賞を行うことが可能となる。

【0057】

一方、ステップS 90でパケット選択操作が検出されなかったときはステップS 94に移行し、ステップS 88での再生開始パケット選択表示を開始してから所定時間経過したかどうかをチェックする。そして未だ所定時間の経過がなければステップS 88に戻る。この結果、再生開始パケット選択表示が継続され、以後、ステップS 94で所定時間の経過が検出されない限り、ステップS 88、ステップS 90およびステップS 94を繰り返してパケット選択操作を待つ。この繰り返しの中においてステップS 90でパケット選択操作が検出されたときの動作は既に述べたとおりである。

【0058】

一方、ステップS 94で所定時間の経過が検出されたときはステップS 96に進み、動画コンテンツ冒頭のパケットを自動的に選択してダウンロードしてステップS 80に移行

し、フローを終了する。この場合も、選択された冒頭パケットがダウンロードされ次第、ストリーミング再生が始まる。これによって、通常放送チャンネルを選択してそのとき関心を持った動画コンテンツがあるとき、リモコン18によって任意箇所鑑賞操作を行えば、以後何もしなくても、自動的にその動画コンテンツについて番組の冒頭からの鑑賞を行うことができる。

【0059】

図5は、図2のステップS32における録画処理の詳細を示すフローチャートである。フローがスタートすると、ステップS102でコンピュータ10がインターネット8に接続済みかどうかチェックする。そして接続済みでなければステップS104に進んでコンピュータ10をインターネット8に常時接続状態とし、ステップS106に移行する。これによって、録画処理においてインターネット接続が必要となる状況に即対応できるようにする。一方、ステップS102で既にネット接続済みであることが検出されると直接ステップS106に移行する。

【0060】

ステップS106では、図2のステップS30で検出された録画操作が通常放送チャンネル選択中に行われたものかどうかチェックされる。そして、該当するときはステップS108に進み、選択されている通常放送チャンネルで放送されている動画コンテンツに対応する動画コンテンツデータを配信するURLを指定する。さらにステップS110では、その動画コンテンツデータがストリーミング配信可能なものであるかどうかをチェックし、該当すればステップS112に進む。

【0061】

一方、図2のステップS30で検出された録画操作が通常放送チャンネル選択中に行われたものであることがステップS106で検出されなかった場合は、直ちにステップS112に進む。録画操作は、録画情報の再生中には行われることはないので、ステップSから直接ステップS112に進む場合というのは、録画操作がサーバ型テレビ局9からのストリーミング配信中に行われた場合に相当する。従って、このような場合も、ステップS110において録画対象がストリーミング配信可能な動画コンテンツデータであることが確認された場合と同様にして、ステップS112に進むよう構成されている。

【0062】

ステップS112では、録画対象のストリーミング配信可能な動画コンテンツデータの配信可能期限を確認し、その期限が管理可能であるかどうかチェックする。そして動画コンテンツデータが期限管理可能であればステップS118に進む。ここで、「期限管理可能」とは、サーバ型テレビ局9においてURLによって指定される動画コンテンツデータを配信する期限を保証しており、かつその期限までに充分余裕がある場合（例えば期限満了まで一週間以上ある場合）を意味する。

【0063】

ステップS112で期限管理可能データであることが確認された場合はステップS118に進み、その動画コンテンツデータを冒頭からダウンロードするためのURLを録画リストに記録する。さらにステップS120でそのURLを管理対象に追加してフローを終了する。このように、録画対象の動画コンテンツデータがストリーミング配信可能なものであってその配信期限が管理可能であるときは、録画操作を行っても実際には動画コンテンツデータのダウンロードを行わず、「再生」時に直ちにその動画コンテンツデータを呼出するためのURLの記録と、配信期限管理の手続きのみを行うことで「録画」とする。このような「録画」処理を行った動画コンテンツデータの「再生」の詳細については後述する。

【0064】

一方、ステップS110で録画対象の動画コンテンツデータがストリーミング配信可能なことが検出できないときはステップS122に進み、直ちに全データをダウンロードする処理を行う。そして、ダウンロード処理が完了するとステップS124に進んでこの動画コンテンツデータのURLを管理対象から除去してフローを終了する。同様に、ス

トリーミング配信可能な動画コンテンツデータであってもその期限管理が可能であることがステップS 1 1 2で検出できない場合はす1 2 2に移行して直ちに全データをダウンロードするとともに、ステップS 1 2 4でこの動画コンテンツデータのURLを管理対象から除去する。

【0065】

図6は、図2のステップS 1 6または、図3のステップS 6 2における録画情報呼出処理の詳細を示すフローチャートである。フローがスタートするとステップS 1 3 2で再生のために呼出された録画情報の動画コンテンツデータが全てダウンロード済で記憶部1 4に記憶されているかどうかチェックされる。そして全データダウンロード済であればステップS 1 3 4に進み、ダウンロード済の動画コンテンツデータを記憶部1 4から呼出す。次いでステップS 1 3 6に進み、呼出した動画コンテンツデータに関する再生中断記録があるかどうかをチェックし、中断記録があればステップS 1 3 8に進んで停止箇所よりのデータ伸長を準備し、フローを終了する。一方、ステップS 1 3 6で再生中断記録が検出されなければステップS 1 4 0に進み、動画コンテンツ冒頭よりのデータ伸長を準備して、フローを終了する。

【0066】

ステップS 1 3 2で全データダウンロード済であることが検出されない場合はす1 4 2に移行し、「録画」した動画コンテンツデータのURL情報を録画リストより呼び出す。このURLはサーバ型テレビ局9だけでなく「録画」した動画コンテンツデータも直接指定する情報である。次いで、ステップS 1 4 4に進み、指定した動画コンテンツデータに関する再生中断記録があるかどうかをチェックし、中断記録があればステップS 1 4 6に進んで停止箇所の packets を特定するURLをさらに呼出してフローを終了する。一方、ステップS 1 4 4で再生中断記録がなければ、ステップS 1 4 8に進んで動画コンテンツデータの冒頭 packets を特定するURLをさらに呼出してフローを終了する。

【0067】

以上説明したステップS 1 3 8、ステップS 1 4 0、ステップS 1 4 6およびステップS 1 4 8は、それぞれ次のステップで必要なデータや情報の準備に該当するものであり、これらのデータや情報は、図2のステップS 1 8や図3のステップS 6 6またはステップS 6 8における再生指示に用いられる。なお、ステップS 1 4 6およびステップS 1 4 8において扱われている packets 特定URLは、図3のステップS 5 8やステップS 6 0および図4のステップS 9 2やステップS 9 6でも用いられるものである。

【0068】

図7は、図2のステップS 3 6における録画管理処理の詳細を示すフローチャートである。このフローチャートは、図5のステップS 1 1 8で録画リストに記録された動画コンテンツの録画管理を行うものであり、フローがスタートすると、まずステップS 1 5 2で録画リストに記録された動画コンテンツがあるかどうかチェックする。そして記録があればステップS 1 5 4に進み、記録された全URLに順次アクセスして期限管理データに変更がないかチェックし、変更があれば録画リストのデータを更新する。

【0069】

そして、ステップS 1 5 6において、現在の日付と録画リストの期限管理期限日付とを比較して期限管理限界に達しているURLがあるかどうかチェックする。ここで、「期限管理限界」とは、そのURLに対応する動画コンテンツデータの配信保証期限満了が所定日数（例えば一週間）前に迫り、ダウンロードの機会を失うと鑑賞が不可能になってしまう恐れがある場合を意味する。そのようなURLがある場合は、ステップS 1 5 8に進み、その中でもっとも保証期限の満了に近い最優先のURLを選定する。そしてステップS 1 6 0で全データダウンロード処理を行うとともに、ダウンロード処理が完了するとステップS 1 6 2に進んでこの動画コンテンツデータのURLを管理対象から除去してステップS 1 5 6に戻る。

【0070】

ステップS 1 5 6では、さらに期限管理限界のURLがあるかどうかチェックし、あれ

ばステップS 1 5 8に進んで、以下、期限管理限界のURLがある限りステップS 1 5 6からステップS 1 6 2を繰り返す。一方、ステップS 1 5 6で期限管理限界のURL検出されない場合は、ただちにフローを終了する。なお、ステップS 1 5 2で録画リストに記録されているURLがない場合も、直ちにフローを終了する。

【0071】

図8は、以上のような制御部12の機能と連携するサーバ型テレビ局9の放送局制御部30における機能の一部を示すフローチャートであり、通常のテレビ局5との連携や配信する動画コンテンツの期限管理に関するものである。なお、放送局制御部30については、詳細な図示は省略するが、狭義の中央制御機能だけでなく、通信機能等、サーバとして必要な周辺諸機能も包含しているものとする。フローは放送局制御部30の立ち上げによりスタートし、ステップS 1 7 2で新動画コンテンツデータがアップロードされたかどうかチェックする。ここで「新動画コンテンツデータ」とは通常のテレビ局5からデジタル放送電波4で放送される動画コンテンツと同一内容の動画コンテンツデータを意味するものとする。

【0072】

そして、そのような動画コンテンツデータのアップロードがあったことがステップS 1 7 2で検出されるとステップS 1 7 4に進み、通常テレビ局から放送される動画コンテンツとの対応関係を示すデータをアップロードされた動画コンテンツに付与する。そしてステップS 1 7 6でその保管期限データを付与してステップS 1 7 8に移行する。なお、ステップS 1 7 2で新動画コンテンツデータのアップロードが検出されなければ直接ステップS 1 7 8に移行する。

【0073】

ステップS 1 7 8では、予めスケジュールされた「番組表」に従ってストリーミング配信予定時刻が到来した動画コンテンツがあるかどうかチェックされる。そして該当するものがあればその動画コンテンツに定時配信URLを付与してステップS 1 8 2に移行する。なお、ステップS 1 7 8で該当する動画コンテンツがなければ直接ステップS 1 8 2に移行する。ステップS 1 7 8で付与されたURLがストリーミング配信予定時間枠内にテレビ2によって「チャンネル選択」されると、「チャンネル選択」が行われた時刻に対応するパケットからのその動画コンテンツの配信が自動的に開始する。従って、テレビ2側からは通常のテレビ局5からの放送を受信するのと同様の感覚でサーバ型テレビ局9からのストリーミング動画配信を受けることができる。つまり、その動画コンテンツのストリーミング配信開始時刻に「チャンネル選択」すれば、動画コンテンツの冒頭からの鑑賞が可能となり、ストリーミング配信予定時間枠内の途中から「チャンネル選択」すれば、動画コンテンツの途中からの鑑賞が可能となる。

【0074】

ステップS 1 8 2では、予めスケジュールされた「番組表」に従って予めURLが付与されている所定のライブストリーミング配信を開始する時刻となったかどうかチェックされる。そして該当するものがあればステップS 1 8 4に進んでライブ撮影される画像情報をストリーミングデータとするとともにそのストリーミング配信を開始する処理が行われる。そして、このようにして作成されたライブストリーミングデータの保管期限データを付与してステップS 1 8 8に移行する。なお、ステップS 1 8 2で該当する動画コンテンツがなければ直接ステップS 1 8 8に移行する。ライブストリーミング動画コンテンツの配信のために予め付与されたURLがステップS 1 8 4で開始されたライブストリーミング配信予定時間枠内にテレビ2によって「チャンネル選択」されると、「チャンネル選択」が行われた時刻に対応するパケットからのその動画コンテンツの配信が自動的に開始する。

【0075】

従って、テレビ2側からは通常のテレビ局5からのライブ放送を受信するのと同様の感覚でサーバ型テレビ局9からのストリーミング動画配信を受けることができる。つまり、その動画コンテンツのライブストリーミング配信開始時刻に「チャンネル選択」すれば、

動画コンテンツの冒頭からのライブ鑑賞が可能となり、ストリーミング配信予定時間枠内の途中から「チャンネル選択」すれば、動画コンテンツの途中からのライブ鑑賞が可能となる。なお、このようなライブストリーミング動画コンテンツデータはステップS 1 8 6で付与される保管期限満了までサーバ型テレビ局9で保管されるので、ライブストリーミング配信を見逃したとしても、その鑑賞は可能である。具体的には、保管されたライブストリーミング動画コンテンツデータがその後「再放送」として「番組表」にスケジューリングされれば、ステップS 1 7 8およびステップS 1 8 0の機能により後日鑑賞できる。また、「番組表」にスケジューリングされなくても保管期限までは後述するアーカイブ機能により鑑賞可能である。

【0076】

ステップS 1 8 8では、「番組表」に従ったストリーミング配信が完了した動画コンテンツがあるかどうかチェックされる。そして該当するものがあればステップS 1 9 0に進み、アーカイブ動画コンテンツとしてのURLが付与してステップS 1 9 2に移行する。一方、ステップS 1 8 8で該当するコンテンツがなければ直接ステップS 1 9 2に移行する。アーカイブURLが付与された動画コンテンツは、「番組表」ではスケジューリングされず、アーカイブリストからのオンデマンドによる選択や検索による抽出によりこのURLを指定したとき、または、図4から図6の機能のいずれかによりURLが呼出されたときに鑑賞可能となる動画コンテンツである。

【0077】

ステップS 1 9 2では、保管期限が満了した動画コンテンツがあるかどうかチェックされ、該当するものがあればステップS 1 9 4でその動画コンテンツをサーバ型テレビ局9のアーカイブから削除する。そして、ステップS 1 9 6に進み、削除した動画コンテンツに付与されていたURLを削除してステップS 1 9 8に移行する。一方、ステップS 1 9 2で該当する動画コンテンツがなければ直接ステップS 1 9 8に移行する。

【0078】

ステップS 1 9 8では、サーバ型テレビ局の定期メンテナンス予定期日が到来したかどうかチェックし、期日が到来していればメンテナンスのためにフローを終了する。一方、期日が到来していなければステップS 1 7 2に戻り、以下期日が到来しない限りステップS 1 7 2からステップS 1 9 8を繰り返して種々の状況変換に対応し、動画コンテンツの管理を継続する。

【0079】

以上説明した本発明の種々の特徴は上記の実施例に限らず、広く適用することが可能である。例えば、上記図5から図8において説明したコンテンツデータの期限管理およびそのダウンロード管理の特徴は、動画コンテンツデータに関する実施に限るものではなく、静止画コンテンツデータやテキストコンテンツデータに関しても広く適用可能である。具体的には、インターネットを通じたパソコンによる種々のデータ取得において、これらのコンテンツの保管期限が確認できたときは、そのデータそのもののダウンロードを保留し、いわゆるブックマーク等、そのデータへの再アクセスを容易にする情報のみを記憶しておくとともに、コンテンツの保管期限が確認できないとき、または保管期限の満了が近づいたときに自動的にそのコンテンツのデータ自体のダウンロード実行を行うよう構成することができる。これによって、無用なダウンロードを省略できるとともに、ブックマークしておいたコンテンツに再アクセスしたとき既にそのコンテンツが削除されていたりするような事態に対処することができる。

【図面の簡単な説明】

【0080】

【図1】本発明におけるコンテンツの受信装置および配信装置の実施例に関するシステム全体のブロック図を示した図面代用写真である。

【図2】図1におけるテレビの制御部の動作のフローチャートを示した図面代用写真である。

【図3】図2におけるステップS 2 4の詳細のフローチャートを示した図面代用写真

である。

【図４】図２におけるステップＳ２８の詳細のフローチャートを示した図面代用写真である。

【図５】図２におけるステップＳ３２の詳細のフローチャートを示した図面代用写真である。

【図６】図２におけるステップＳ１６または図３のステップＳ６２の詳細のフローチャートを示した図面代用写真である。

【図７】図２におけるステップＳ３６の詳細のフローチャートを示した図面代用写真である。

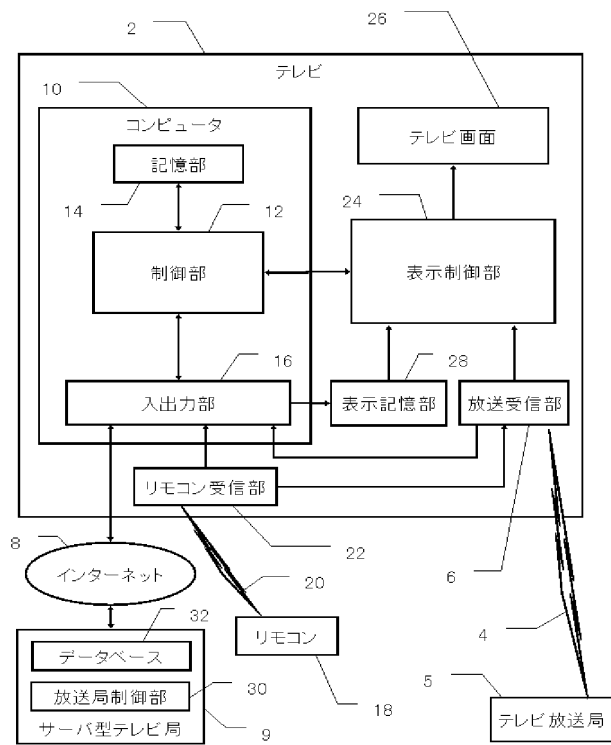
【図８】図１の放送局制御部における機能のフローチャートを示した図面代用写真である。

【符号の説明】

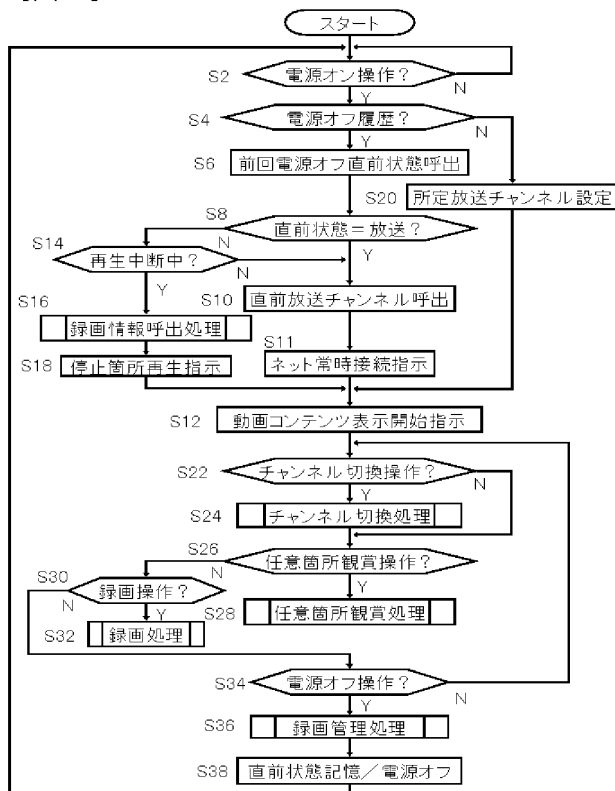
【００８１】

２	コンテンツ受信装置
９	配信装置
１２	指定部
１４	記憶部
１４	保存部
１２	判定部
１８	操作部
１２、１６	受信実行部
９	通信サーバ
６	放送受信部
１８	電源スイッチ
１６	通信部
２６	表示部
１２	通信制御部
１８	選択手段
１８	指示手段
１８、２６	選択操作部
３２	保管部
３０	通信部
３０	制御部

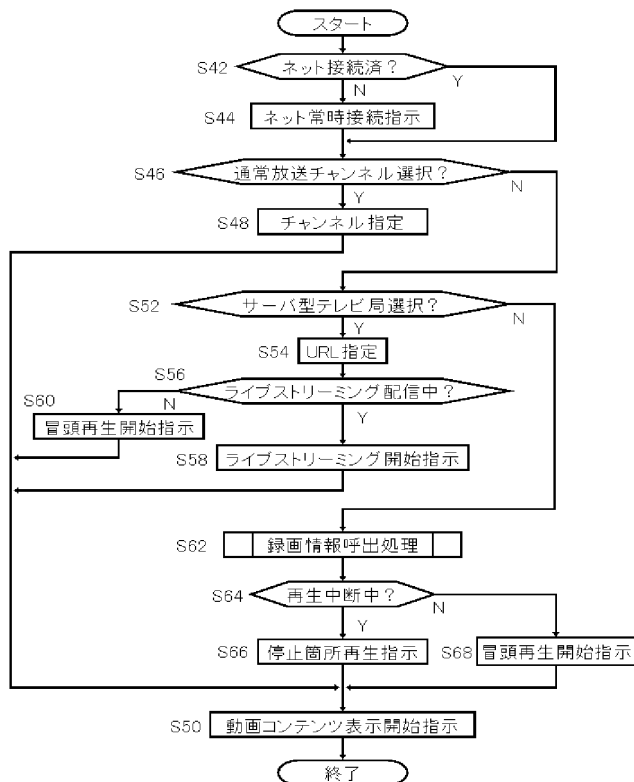
【書類名】 図面
【図 1】



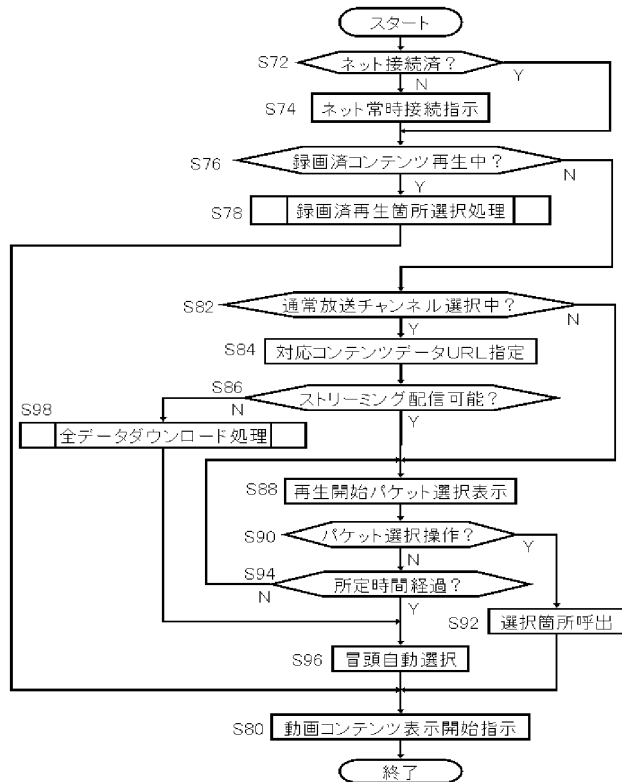
【図 2】



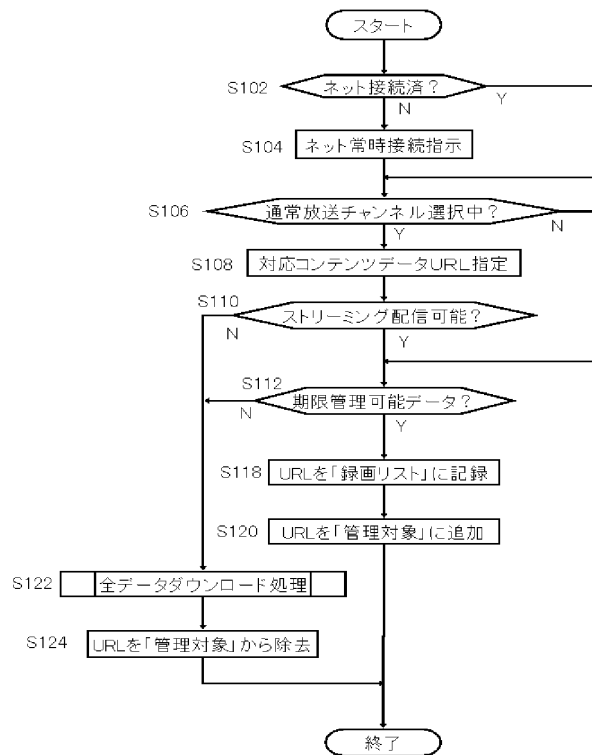
【図 3】



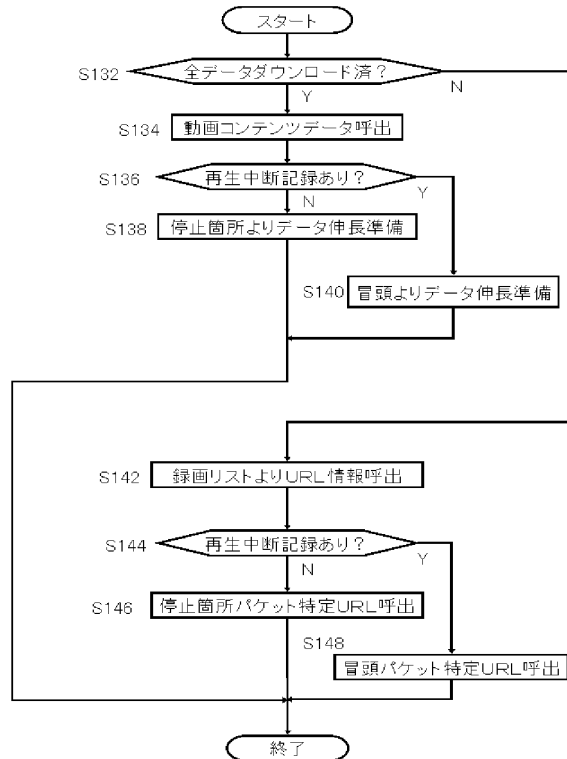
【図 4】



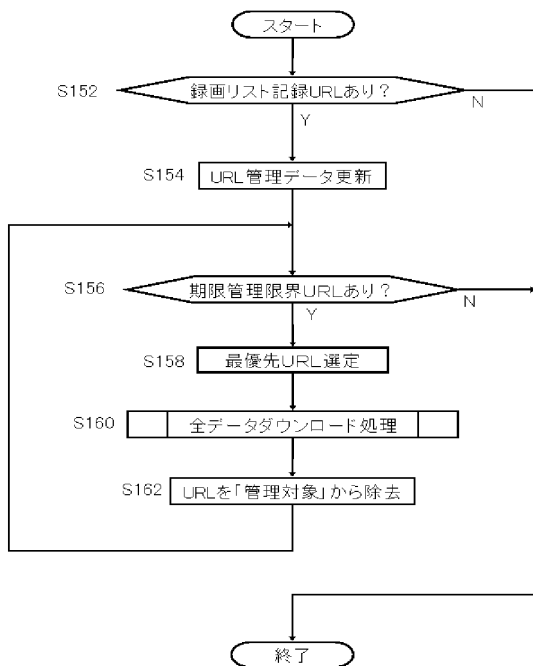
【図 5】



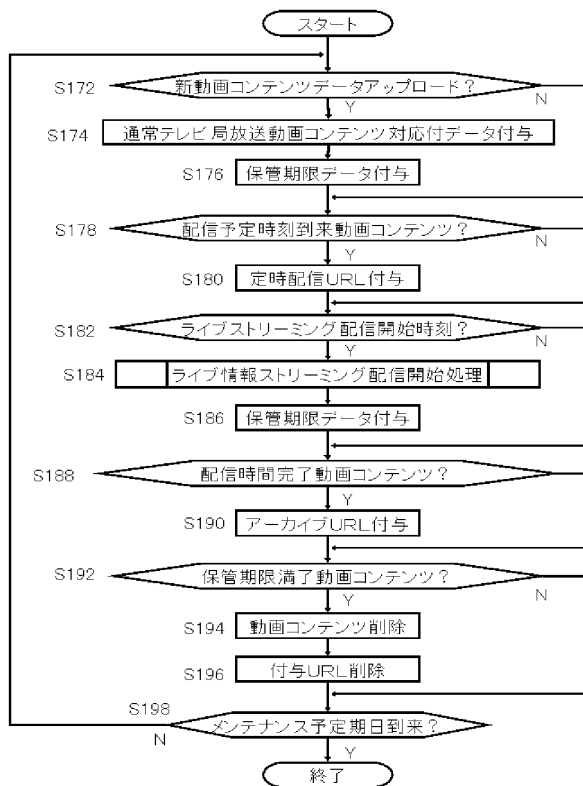
【図 6】



【図 7】



【図 8】



【書類名】 要約書

【要約】

【課題】 ユーザが使いやすいコンテンツの受信装置および配信装置を提供する。

【解決手段】 動画コンテンツの指定で余裕ある保管期限が確認できればダウンロードを保留してブックマークするとともに、保管期限が確認できないか保管期限が迫っている時にはダウンロードする。電源オン時、前回の電源オフ時に指定していた動画コンテンツの再生を再開させる。テレビの通常操作で通信サーバとの常時通信状態を確立しておく。放送途中のテレビ番組からのリンクで通信サーバにアクセスし、同一内容の動画コンテンツの番組冒頭等からの鑑賞やデータ全体のダウンロードを可能とする。サーバ側では、放送番組と対応づけて同一内容の動画コンテンツデータを期限付きで保管しておく。ライブストリーミング配信時は、アクセス時点のパケットから自動配信し、アーカイブデータは冒頭パケット等から自動配信する。

【選択図】 図 1

【書類名】	手続補正書
【提出日】	平成20年10月23日
【あて先】	特許庁長官殿
【事件の表示】	
【出願番号】	特願2008-235797
【補正をする者】	
【識別番号】	508278745
【住所又は居所】	大阪府豊中市小曾根 1 丁目 1 7 番 9 号
【氏名又は名称】	N L 技研株式会社
【代表者】	田中 雅英
【発送番号】	150701
【発送日】	平成20年10月21日
【手続補正1】	
【補正対象書類名】	特許願
【補正対象項目名】	特許出願人
【補正方法】	追加
【補正の内容】	
【その他】	本件手続をしたことに相違ありません。

【書類名】 手続補正書
【整理番号】 P2008-001
【あて先】 特許庁長官殿
【事件の表示】
【出願番号】 特願2008-235797
【補正をする者】
【識別番号】 508278745
【氏名又は名称】 N L 技研株式会社
【代表者】 田中 雅英
【手続補正1】
【補正対象書類名】 特許請求の範囲
【補正対象項目名】 全文
【補正方法】 変更
【補正の内容】
【書類名】 特許請求の範囲
【請求項1】

放送デジタル動画コンテンツを受信する放送受信部と、通信サーバからデジタル動画コンテンツのデータを受信する通信部と、前記放送受信部および前記通信部のいずれから受信したデジタル動画コンテンツであってもこれを表示可能な表示部と、前記放送受信部によって受信されるデジタル動画コンテンツからのリンクにより前記通信サーバから受信すべきデジタル動画コンテンツのデータを指定する指定操作部とを有することを特徴とするコンテンツ受信装置。

【請求項2】

前記指定操作部による指定に基づいて前記通信サーバからデジタル動画コンテンツのデータを受信するための受信実行部と、前記指定部による指定を記憶するための記憶部と、通信サーバにおける指定されたデジタル動画コンテンツのデータの保管期限未到来が確認できたときは指示されたデジタル動画コンテンツのデータの前記受信実行部による受信実行を自動保留して前記指定部による指定を前記記憶部に自動記憶させるとともに保管期限未到来が確認できないときは指示されたデジタル動画コンテンツのデータの前記受信実行部による受信を自動実行させる判定部と、前記受信実行部により受信されたデジタル動画コンテンツのデータを保存する保存部とを有することを特徴とする請求項2記載のコンテンツ受信装置。

【請求項3】

前記指定部は、前記表示部に途中部が表示されている前記放送受信部により受信されたデジタル動画コンテンツからのリンクにより通信サーバから受信すべきデジタル動画コンテンツの冒頭部のデータの指定することを特徴とする請求項1記載のコンテンツ受信装置。

【請求項4】

外部から予め決められたスケジュールに従って受信する所定のデジタル動画コンテンツを表示する表示部と、前記表示部に現に表示されているデジタル動画コンテンツからのリンクによりそのデジタル動画コンテンツの別の部分を指定する指定部と、前記指定部によって指定されたデジタル動画コンテンツの別の部分を通信サーバから受信する通信部とを有することを特徴とするコンテンツ受信装置。

【請求項5】

所望のコンテンツを指定する指定部と、指定されたコンテンツの次回指定を容易にするための情報を記憶する記憶部と、前記記憶部の前記情報および配信装置における指定されたコンテンツの保管に関する情報に基づき指定されたコンテンツデータを配信装置から自動的に受信して保存する保存部を有することを特徴とするコンテンツ受信装置。

【請求項6】

放送デジタル動画コンテンツを受信する放送受信部と、通信サーバからデジタル動画コ

ンテンツを受信する通信部と、前記放送受信部および前記通信部のいずれから受信したデジタル動画コンテンツであってもこれを表示可能な表示部と、前記放送受信部による受信するデジタル動画コンテンツに関する操作を行う操作部と、前記操作部の操作に基づき通信サーバとの常時通信状態を確立する通信制御部とを有すること特徴とするコンテンツ受信装置。

【書類名】 手続補正書
【整理番号】 P2008-001
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【あて先】 特許庁長官殿（特許庁審査官 川崎 優 殿）

【事件の表示】

【出願番号】 特願2008-235797

【補正をする者】

【識別番号】 508278745

【住所又は居所】 大阪府豊中市小曾根1丁目17番9号

【氏名又は名称】 NL技研株式会社

【代表者】 田中 雅英

【発送番号】 692314

【手続補正1】

【補正対象書類名】 特許請求の範囲

【補正対象項目名】 全文

【補正方法】 変更

【補正の内容】

【書類名】 特許請求の範囲

【請求項1】

放送されるデジタル動画コンテンツを受信することが可能な放送受信部と、放送されるものと同一のデジタル動画コンテンツを配信する通信サーバから前記デジタル動画コンテンツのデータを受信することが可能な通信部と、前記放送受信部および前記通信部のいずれから受信したデジタル動画コンテンツであってもこれを表示可能な表示部と、前記放送受信部によって受信されるデジタル動画コンテンツからのリンクにより前記通信サーバから受信すべき同一内容のデジタル動画コンテンツのデータを指定する指定操作部とを有することを特徴とするコンテンツ受信装置。

【請求項2】

前記指定操作部による指定に基づいて前記通信サーバからデジタル動画コンテンツのデータを受信するための受信実行部と、前記指定部による指定を記憶するための記憶部と、通信サーバにおける指定されたデジタル動画コンテンツのデータの保管期限未到来が確認できたときは指示されたデジタル動画コンテンツのデータの前記受信実行部による受信実行を自動保留して前記指定部による指定を前記記憶部に自動記憶させるとともに保管期限未到来が確認できないときは指示されたデジタル動画コンテンツのデータの前記受信実行部による受信を自動実行させる判定部と、前記受信実行部により受信されたデジタル動画コンテンツのデータを保存する保存部とを有することを特徴とする請求項1記載のコンテンツ受信装置。

【請求項3】

前記指定部は、前記表示部に途中部が表示されている前記放送受信部により受信されたデジタル動画コンテンツからのリンクにより通信サーバから受信すべき同一内容のデジタル動画コンテンツの冒頭部のデータを指定することを特徴とする請求項1記載のコンテンツ受信装置。

【請求項4】

外部から予め決められたスケジュールに従って受信する所定のデジタル動画コンテンツを表示する表示部と、前記表示部に現に表示されているデジタル動画コンテンツからのリンクにより同一内容のデジタル動画コンテンツの別の部分を指定する指定部と、前記指定部によって指定された前記同一内容のデジタル動画コンテンツの別の部分を通信サーバから受信する通信部とを有することを特徴とするコンテンツ受信装置。

【請求項5】

外部から予め決められたスケジュールに従って受信する所定のデジタル動画コンテンツを指定する指定部と、指定されたデジタル動画コンテンツを表示する表示部と、指定され

たデジタル動画コンテンツからのリンクにより同一内容のデジタル動画コンテンツの次回指定を容易にするための情報を記憶する記憶部と、前記記憶部の前記情報および通信サーバにおける指定されたコンテンツの保管に関する情報に基づき指定されたデジタル動画コンテンツデータを通信サーバから自動的に受信して保存する保存部を有することを特徴とするコンテンツ受信装置。

【請求項6】

放送されるデジタル動画コンテンツを受信する放送受信部と、前記放送受信部によって受信されるデジタル動画コンテンツからのリンクにより指定される同一内容のデジタル動画コンテンツを通信サーバから受信する通信部と、前記放送受信部および前記通信部のいずれから受信したデジタル動画コンテンツであってもこれを表示可能な表示部と、前記放送受信部による受信するデジタル動画コンテンツに関する操作を行う操作部と、前記操作部の操作に基づき前記同一内容のデジタル動画コンテンツを指定するために通信サーバとの常時通信状態を確立する通信制御部とを有すること特徴とするコンテンツ受信装置。

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【あて先】 特許庁長官殿（特許庁審査官 川崎 優 殿）
【事件の表示】
【出願番号】 特願2008-235797
【補正をする者】
【識別番号】 508278745
【住所又は居所】 大阪府豊中市小曾根 1 丁目 1 7 番 9 号
【氏名又は名称】 NL 技研株式会社
【代表者】 田中 雅英
【発送番号】 396813
【手続補正1】
【補正対象書類名】 特許請求の範囲
【補正対象項目名】 全文
【補正方法】 変更
【補正の内容】
【書類名】 特許請求の範囲
【請求項 1】

放送されるデジタル動画コンテンツを受信することが可能な放送受信部と、放送されるものと同一のデジタル動画コンテンツを配信する通信サーバから前記デジタル動画コンテンツのデータを受信することが可能な通信部と、前記放送受信部および前記通信部のいずれから受信したデジタル動画コンテンツであってもこれを表示可能な表示部と、操作部と、前記放送受信部によって受信されるデジタル動画コンテンツが前記表示部に表示されている状態での前記操作部の操作に応じそのデジタル動画コンテンツとの対応関係を示すデータが付与されている前記通信サーバにおける同一内容のデジタル動画コンテンツのデータを前記通信部から受信するために指定する指定部とを有することを特徴とするコンテンツ受信装置。

【請求項 2】

前記指定部による指定に基づいて前記通信サーバからデジタル動画コンテンツのデータを受信するための受信実行部と、前記指定部による指定を記憶するための記憶部と、通信サーバにおける指定されたデジタル動画コンテンツのデータの保管期限未到来が確認できたときは指示されたデジタル動画コンテンツのデータの前記受信実行部による受信実行を自動保留して前記指定部による指定を前記記憶部に自動記憶させるとともに保管期限未到来が確認できないときは指示されたデジタル動画コンテンツのデータの前記受信実行部による受信を自動実行させる判定部と、前記受信実行部により受信されたデジタル動画コンテンツのデータを保存する保存部とを有することを特徴とする請求項 1 記載のコンテンツ受信装置。

【請求項 3】

前記指定部は、前記表示部に前記放送受信部により受信されたデジタル動画コンテンツの途中部が表示されている状態での前記操作部の操作に応じ通信サーバにおける同一内容のデジタル動画コンテンツの冒頭部のデータを指定することを特徴とする請求項 1 記載のコンテンツ受信装置。

【請求項 4】

外部から予め決められたスケジュールに従って受信する所定のデジタル動画コンテンツを表示する表示部と、操作部と、前記表示部に前記デジタル動画コンテンツが表示されている状態での前記操作部の操作に応じそのデジタル動画コンテンツとの対応関係を示すデータが付与されている同一内容のデジタル動画コンテンツにおける現に表示されている部分とは別の部分を指定する指定部と、前記指定部によって指定された前記同一内容のデジタル動画コンテンツの別の部分を通信サーバから受信する通信部とを有することを特徴と

するコンテンツ受信装置。

【請求項 5】

外部から予め決められたスケジュールに従って受信する所定のデジタル動画コンテンツを指定する指定部と、指定されたデジタル動画コンテンツを表示する表示部と、操作部と、指定されたデジタル動画コンテンツが表示されている状態での前記操作部の操作に応じそのデジタル動画コンテンツとの対応関係を示すデータが付与されている同一内容のデジタル動画コンテンツの次回指定を容易にするための情報を記憶する記憶部と、前記記憶部の前記情報および通信サーバにおける指定されたコンテンツの保管に関する情報に基づき指定されたデジタル動画コンテンツデータを通信サーバから自動的に受信して保存する保存部を有することを特徴とするコンテンツ受信装置。

【請求項 6】

放送されるデジタル動画コンテンツを受信する放送受信部と、前記放送受信部によって受信されるデジタル動画コンテンツとの対応関係を示すデータが付与されている同一内容のデジタル動画コンテンツを指定して通信サーバから受信する通信部と、前記放送受信部および前記通信部のいずれから受信したデジタル動画コンテンツであってもこれを表示可能な表示部と、前記放送受信部による受信するデジタル動画コンテンツに関する操作を行う操作部と、前記操作部の操作に基づき前記同一内容のデジタル動画コンテンツを指定するために通信サーバとの常時通信状態を確立する通信制御部とを有すること特徴とするコンテンツ受信装置。

出願人履歴

7 0 6 0 0 0 2 9 6

20060202

新規登録

大阪府豊中市小曾根 1 — 1 7 — 9

田中 雅英

5 0 8 2 7 8 7 4 5

20080914

新規登録

大阪府豊中市小曾根 1 丁目 1 7 番 9 号

N L 技研株式会社

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 15/633,776	
APPLICATION AS FILED - PART I							
(Column 1)		(Column 2)		SMALL ENTITY		OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	70		N/A	
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	300		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	360		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	12	minus 20 = *	x 40 =	0.00	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	minus 3 = *	x 210 =	0.00			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
			TOTAL	730		TOTAL	
* If the difference in column 1 is less than zero, enter "0" in column 2.							
APPLICATION AS AMENDED - PART II							
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY	
AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=
	Application Size Fee (37 CFR 1.16(s))						
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	
(Column 1)		(Column 2)		(Column 3)		OTHER THAN SMALL ENTITY	
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=
	Application Size Fee (37 CFR 1.16(s))						
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.							



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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
15/633,776	06/27/2017	2688	730	US8CA4	12	3

CONFIRMATION NO. 5281

FILING RECEIPT



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67628
MASAHIDE TANAKA
1-17-9, OZONE, TOYONAKA-SHI, OSAKA JAPAN
OSAKA,
JAPAN

Date Mailed: 07/06/2017

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Masahide Tanaka, Osaka, JAPAN;

Applicant(s)

Masahide Tanaka, Osaka, JAPAN;

Assignment For Published Patent Application

NL Giken Incorporated, Osaka, JAPAN

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 14/934,331 11/06/2015
which is a CON of 14/519,389 10/21/2014 PAT 9210484
which is a CON of 14/224,070 03/25/2014 PAT 8893187
which is a CON of 12/557,476 09/10/2009 PAT 8726028

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.)
JAPAN 2008-235797 09/14/2008

Permission to Access Application via Priority Document Exchange: Yes

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Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

Request to Retrieve - This application either claims priority to one or more applications filed in an intellectual property Office that participates in the Priority Document Exchange (PDX) program or contains a proper **Request to Retrieve Electronic Priority Application(s)** (PTO/SB/38 or its equivalent). Consequently, the USPTO will attempt to electronically retrieve these priority documents.

If Required, Foreign Filing License Granted: 07/03/2017

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/633,776**

Projected Publication Date: 10/12/2017

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Digital contents receiving apparatus

Preliminary Class

369

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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page 2 of 4

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UTILITY PATENT APPLICATION TRANSMITTAL (Only for new nonprovisional applications under 37 CFR 1.53(b))	Attorney Docket No.	US8CA4
	First Inventor	Masahide Tanaka
	Title	
	Express Mail Label No.	

APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	ADDRESS TO: Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450
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1. ☐ Fee Transmittal Form (e.g., PTO/SB/17) 2. ☒ Applicant claims small entity status. See 37 CFR 1.27. 3. ☒ Specification [Total Pages <u>38</u>] Both the claims and abstract must start on a new page (For information on the preferred arrangement, see MPEP 608.01(a)) 4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets <u>8</u>] 5. Oath or Declaration [Total Sheets <u>3</u>] a. ☒ Newly executed (original or copy) b. ☐ A copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed) i. ☐ DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). 6. ☒ Application Data Sheet. See 37 CFR 1.76 7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix) ☐ Landscape Table on CD 8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, items a. – c. are required) a. ☐ Computer Readable Form (CRF) b. Specification Sequence Listing on: i. ☐ CD-ROM or CD-R (2 copies); or ii. ☐ Paper c. ☐ Statements verifying identity of above copies	ACCOMPANYING APPLICATION PARTS 9. ☐ Assignment Papers (cover sheet & document(s)) Name of Assignee _____ 10. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney (when there is an assignee) 11. ☐ English Translation Document (if applicable) 12. ☐ Information Disclosure Statement (PTO/SB/08 or PTO-1449) ☐ Copies of citations attached 13. ☐ Preliminary Amendment 14. ☐ Return Receipt Postcard (MPEP 503) (Should be specifically itemized) 15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed) 16. ☐ Nonpublication Request under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent. 17. ☐ Other: _____
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18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

☒ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: 14/934,331.....

Prior application information: Examiner SHAYANFAR, ALI Art Unit: 2497

19. CORRESPONDENCE ADDRESS						
☒ The address associated with Customer Number:		67628		OR ☐ Correspondence address below		
Name	Masahide Tanaka					
Address	1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan					
City	Osaka	State		Zip Code	561-0813	
Country	Japan	Telephone	+81663346204		Email	guitar@kym.biglobe.ne.jp

Signature	/Masahide Tanaka/	Date	June 27, 2017
Name (Print/Type)	Masahide Tanaka	Registration No. (Attorney/Agent)	

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	US8CA4
		Application Number	
Title of Invention	A digital contents receiving apparatus		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor	1				Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
Mr. ▾	Masahide		Tanaka	▾	
Residence Information (Select One) US Residency • Non US Residency Active US Military Service					
City	Osaka	Country of Residence ⁱ	JP		
Mailing Address of Inventor:					
Address 1	1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan				
Address 2					
City	Osaka	State/Province			
Postal Code	561-0813	Country ⁱ	JP		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.					

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.			
For further information see 37 CFR 1.33(a).			
☐ An Address is being provided for the correspondence information of this application.			
Customer Number	67628		
Email Address	guitar@kym.biglobe.ne.jp	Add Email	Remove Email

Application Information:

Title of the Invention	A digital contents receiving apparatus		
Attorney Docket Number	US8CA4	Small Entity Status Claimed	☒
Application Type	Nonprovisional ▾		
Subject Matter	Utility ▾		
Total Number of Drawing Sheets (if any)	8	Suggested Figure for Publication (if any)	

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	US8CA4
		Application Number	
Title of Invention	A digital contents receiving apparatus		

Publication Information:

☐	Request Early Publication (Fee required at time of Request 37 CFR 1.219)
☐	Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.			
Please Select One:			
☒	Customer Number	US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	67628		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.					
Prior Application Status	Pending		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)		
	Continuation of	14934331	2015-11-06		
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14934331	Continuation of	14519389	2014-10-21	9210484	2015-12-08
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14519389	Continuation of	14224070	2014-03-25	8893187	2014-11-18
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14224070	Continuation of	12557476	2009-09-10	8726028	2014-05-13
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.					Add

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	US8CA4
		Application Number	
Title of Invention	A digital contents receiving apparatus		

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(d). When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)ⁱ the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(h)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Remove			
Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ⁱ (if applicable)
2008-235797	JP	2008-09-14	
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.

☐ NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Authorization to Permit Access:

☒ Authorization to Permit Access to the Instant Application by the Participating Offices

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	US8CA4
		Application Number	
Title of Invention	A digital contents receiving apparatus		

If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the instant patent application is filed access to the instant patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the instant patent application is filed to have access to the instant patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing this Authorization.

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant	1			Remove
If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.				
Clear				
Assignee	Legal Representative under 35 U.S.C. 117		Joint Inventor	
Person to whom the inventor is obligated to assign.		Person who shows sufficient proprietary interest		
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:				
Name of the Deceased or Legally Incapacitated Inventor :				
If the Applicant is an Organization check here. ☐				
Prefix	Given Name	Middle Name	Family Name	Suffix

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	US8CA4
		Application Number	
Title of Invention	A digital contents receiving apparatus		

Mailing Address Information For Applicant:			
Address 1			
Address 2			
City		State/Province	
Country		Postal Code	
Phone Number		Fax Number	
Email Address			
Additional Applicant Data may be generated within this form by selecting the Add button. Add			

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Assignee	1		
Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.			
Remove			
If the Assignee is an Organization check here. ☒			
Organization Name	NL Giken Incorporated		
Mailing Address Information For Non-Applicant Assignee:			
Address 1	1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan		
Address 2			
City	Osaka	State/Province	
Country	JP	Postal Code	561-0813
Phone Number	+81663346204	Fax Number	+81663346204
Email Address	guitar@kym.biglobe.ne.jp		
Additional Assignee Data may be generated within this form by selecting the Add button. Add			

Signature:

Remove

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Signature	/Masahide Tanaka/	Date (YYYY-MM-DD)	2017-06-27
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	US8CA4		
		Application Number			
Title of Invention	A digital contents receiving apparatus				
First Name	Masahide	Last Name	Tanaka	Registration Number	
Additional Signature may be generated within this form by selecting the Add button.					Add

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)		Attorney Docket Number	US8CA4
		First Named Inventor	Masahide Tanaka
☒ Declaration Submitted With Initial Filing OR ☐ Declaration Submitted After Initial Filing (surcharge (37 CFR 1.16(f)) required)		COMPLETE IF KNOWN	
		Application Number	
		Filing Date	27-JUN-2017
		Art Unit	
		Examiner Name	

A digital contents receiving apparatus

(Title of the Invention)

As a below named inventor, I hereby declare that:

This declaration is directed to:

☒ The attached application,

OR

☐ United States Application Number or PCT International application number _____
filed on _____.

The above-identified application was made or authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Authorization To Permit Access To Application by Participating Office

☒ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

[Page 1 of 2]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

DECLARATION — Utility or Design Patent Application

Direct all correspondence to: ☒ The address associated with Customer Number: 67628		OR ☐ Correspondence address below	
Name Masahide Tanaka			
Address 1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan			
City Osaka		State	Zip 561-0813
Country JP	Telephone +81663346204		Email guitar@kym.biglobe.ne.jp
WARNING: Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. Petitioner/applicant is advised that documents which form the record of a patent application (such as the PTO/SB/01) are placed into the Privacy Act system of records DEPARTMENT OF COMMERCE, COMMERCE-PAT-7, System name: <i>Patent Application Files</i>. Documents not retained in an application file (such as the PTO-2038) are placed into the Privacy Act system of COMMERCE/PAT-TM-10, System name: <i>Deposit Accounts and Electronic Funds Transfer Profiles</i>.			
LEGAL NAME OF SOLE OR FIRST INVENTOR:			
(E.g., Given Name (first and middle (if any)) and Family Name or Surname) Masahide Tanaka			
Inventor's Signature /Masahide Tanaka/		Date (Optional) June 27, 2017	
Residence: City Osaka	State	Country Japan	
Mailing Address 1-17-9, Ozone, Toyonaka-Shi, Osaka, Japan			
City Osaka	State	Zip 561-0813	Country JP
☐ Additional inventors are being named on the _____ supplemental sheet(s) PTO/AIA/10 attached hereto			

[Page 2 of 2]

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

SPECIFICATION

CROSS REFERENCE TO RELATED APPLICATION

This application is a ***Continuation Application*** of U.S. application Ser. No. 14/934,331 filed November 6, 2015, which is a continuation application of U.S. application Ser. No. 14/519,389 filed October 21, 2014, which is a continuation application of U.S. application Ser. No. 14/224,070 filed March 25, 2014, which is a continuation application of U.S. application Ser. No. 12/557,476 filed September 10, 2009, herein incorporated by reference in its entirety.

TITLE OF THE INVENTION

A digital contents receiving apparatus

BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION

This invention relates to a digital contents receiving apparatus.

2. DESCRIPTION OF THE RELATED ART

In this field of the art, various digital contents receiving apparatus have been proposed. Typical digital contents are digital moving image contents, which have been provided by television stations through digital airwaves. Such digital moving image contents are typically received by television sets as the digital contents receiving apparatus for users to enjoy them in real time. Or the digital moving image contents provided by television stations are received by recording apparatus as the digital contents receiving apparatus, such as DVD (Digital Versatile Disc) recorders or HDD

(Hard Disk Drive) recorders.

Further, the digital moving image contents have provided by server stations through the internet for a personal computer as the digital contents receiver to receive the digital moving image contents. In this case, the data of digital moving image contents have been downloaded in the compressed filed and decompressed when enjoyed. The digital moving image contents have been also enjoyed through internet in real time by means of streaming technology. Though the internet, not only the digital moving image contents, but also other various digital contents, such as digital still image contents and digital text data for various digital contents receiving apparatus to receive them.

Japanese Laid-open Patent Application No. 2006-319955 proposes an example of automatic recording and playback apparatus for digital moving image contents. Japanese Laid-open Patent Application No. 2001-285743 proposes an example of television set capable of connection to the internet.

However, the increase of options may enrich the world of digital contents receiving apparatuses, it puts ordinary and majority of users, who cannot fully appreciate them, into confusion at the same time. Thus, there still exist in this field of art many demands for improvements of the digital contents receiving apparatuses.

SUMMARY OF THE INVENTION

An object of this invention is to propose an improved digital contents receiving apparatus in easiness of use.

Another object of this invention is to propose an improved digital moving image contents receiving apparatus in easiness of use.

To achieve one of the above objects, this invention provides a receiving apparatus capable of receiving digital contents from outside contents source comprising a first unit arranged to designate one of the digital contents in the outside source, a second unit arranged to keep information necessary for the first unit to designating the same digital content again, and a third unit arranged to automatically obtain from the outside source information relating to control of the designated digital content and keep the information in relation to the information kept in the second unit. According to the feature of this invention, the receiving apparatus can tightly cooperate with the outside content source with a mismatch therebetween avoided.

According to a detailed feature of this invention, the information obtained and kept by the third unit above relates to the time limit for the outside source to surely provide the designated content. By means of this feature, the receiving apparatus can rely on the outside source to avoid such a mismatch that the desired digital content has been deleted form the outside source when the receiving apparatus designates the same digital content again

According to another detailed feature of this invention, the receiving apparatus further comprises a fourth unit arranged to automatically receive the designated digital content in response to the information kept by the third unit and store the received digital content. By means of this feature, the desired digital content can be automatically secured in case the outside source will delete the same. According to a further detailed feature of this invention above, the fourth unit is arranged to automatically receive the designated digital content in advance to such a situation that the outside source can no more provide the designated digital content.

According to another detailed feature of this invention, the receiving

apparatus further comprises a fourth unit arranged to automatically receive the designated digital content if the third unit fails to obtain the information relating to control of the designated digital content. By means of this feature, the desired digital content can be automatically secured on the safe side under the situation of insufficient information.

According to another detailed feature of this invention, the receiving apparatus further comprises a fourth unit arranged to receive the designated digital content in response to a manual operation for demanding the designated digital content. By means of this feature, the desired digital content can be downloaded any time depending on own responsibility of the user.

A typical example of the digital contents relate to digital moving image contents and the outside contents source relates to a provider of the digital moving image contents. In this case the receiving apparatus further comprises a display unit arranged for viewing the digital moving image contents. However, the above features are not only applicable to the moving image contents, but also widely to other digital contents, such as still image contents or text data contents.

To achieve the objects above, this invention also provides a receiving apparatus capable of receiving digital moving image contents from outside providers of the digital moving image contents comprising a manually operable unit arranged to turn on and off the receiving apparatus in response to a manual operation, a first unit arranged to designate one of the digital moving image contents in the outside provider, a second unit arranged to keep information necessary for the first unit to designate the same digital moving image content again, a third unit arranged to have the second unit keep the information when the manually operable unit turns off the receiving

apparatus and have the first unit designate the same digital moving image content again when the manually operable unit turns on the receiving apparatus afterward, a fourth unit arranged to receive the designated digital moving image content in response to the designation by the first unit, and a display unit arranged for viewing the digital moving image contents received by the fourth unit. According to the feature of this invention above, a digital moving image content which has been enjoyed when the manually operable unit turns off the receiving apparatus will be automatically designated again when the manually operable unit turns on the receiving apparatus afterward. This is considered advantageous because the digital moving image content which has been actually enjoyed when the receiving apparatus is turned off is assumed to be of the most interest if no other designation is made.

In a typical case of the above feature according to this invention, the first unit is arranged to designate the digital moving image content by means of selecting the provider, whereby the digital moving image content which is provided by the provider at the time of selection is designated.

In another typical case of the above feature according to this invention, the first unit is arranged to designate a digital moving image content provided by the provider by means of streaming technology in accordance with a program schedule table, whereby the digital moving image content is provided from a part which is provided by the provider at the time of designation.

In a still another typical case of the above feature according to this invention, the first unit is arranged to designate a part of digital moving image content, whereby the digital moving image content is provided from the part which designated by the first unit. According to a detailed feature applicable to this case, the third unit is

arranged to have the second unit keep the information of a part of digital moving image content when the manually operable unit turns off the receiving apparatus and have the first unit designate a succeeding part of the same digital moving image content when the manually operable unit turns on the receiving apparatus afterward. In a further still another typical case of the above feature according to this invention, the first unit may arranged to designate an optional part of the digital moving image content in response to a manual operation.

To achieve the objects above, this invention also provides a receiving apparatus capable of receiving digital moving image contents from outside providers of the digital moving image contents comprising, a selector unit arranged to manually select one of the digital moving image contents provided in accordance with a program schedule table predetermined by the provider, a receiver unit arranged to receive the selected digital moving image content from a first part which is provided by the provider at the time of selection by the selector unit, a display unit arranged for viewing the digital moving image contents received by the receiver unit, and a controller unit arranged to make it possible for the display unit to display a second part of the same digital moving image content which has been already provided by the provider. The feature of this invention above is advantageous in such a case that a television set turning-on or channel changing operation is done by a user with any specific digital moving image content not in mind to feel interest in the content appearing on television display by chance in response to the turning-on or channel changing operation.

A typical case in which the above feature is advantageous is when the user desire to instantly view the same interested content from an optional position such as

the beginning. According to a detailed feature of this invention for such a case, the controller unit is arranged to have the receiver unit receive the second part of the same digital moving image content during a slot of the program schedule table for the selected digital moving image content.

In another typical case of the above feature according to this invention, the controller includes memory unit arranged to keep information necessary for the selector to select the same digital content again.

Still another typical case in which the above feature is advantageous is when the user desire to view the same interested content afterward. According to a detailed feature of this invention for such a case, the second part memory unit is arranged to receive and store the entire data of the digital moving image content.

Other features and advantages according to this invention will be readily understood from the detailed description of the preferred embodiment in conjunction with the accompanying drawings.

The detailed description of the preferred embodiment according to this invention includes various detailed features derived from the above mentioned features. However, such detailed features are not only applicable to the above mentioned features, but also are widely and independently applicable to other objects and features. So, the above description should not be deemed to limit the scope of this invention, which should be properly determined on the basis of the attached claims.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram showing the moving image enjoying system in whole according to a preferred embodiment of this invention.

Fig. 2 is a basic flowchart showing the function carried out by television set processor of television set computer in Fig. 1.

Fig. 3 is a flowchart showing the detailed function of the channel changing process in step S24 in Fig. 2.

Fig. 4 is a flowchart showing the detailed function of the optional shift process in step S28 in Fig. 2.

Fig. 5 is a flowchart showing the detailed function of the recording process in step S32 in Fig. 2.

Fig. 6 is a flowchart showing the detailed function of the record recall process in step S16 in Fig. 2 or in step S62 in Fig. 3.

Fig. 7 is a flowchart showing the detailed function of the record control process in step S36 in Fig. 2.

Fig. 8 is a flowchart showing a partial function carried out by server processor of server station in cooperation with television set processor of television set computer in Fig. 1.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Fig. 1 is a block diagram showing the moving image viewing system in whole according to an embodiment of this invention. The embodiment includes television set 2 as a receiver of digital contents such as moving images, and television station 5 and server station 9 as providers of the digital contents. Television set 2 in the system includes tuner 6 for receiving a digital broadcast television program content transmitted on digital airwave 4 from television station 5. Television set 2 also includes television set computer 10 for receiving a digital moving image program

content provided by server station 9 through internet 8. Television set computer 10 includes television set processor 12, memory 14 and input/output interface 16. Input/output interface 16 serves as a receiver for inputting data of digital moving image program contents stored in data base 32 of server station 9 downloaded by way of internet 8. Memory 14 is for storing computer programs executed by television set processor 12 and also for storing various data such as the digital moving image program contents downloaded from server station 9 by means of input/output interface 16. Memory 14 is of such a large capacity including a hard disk as capable of storing a considerable number of digital moving image program contents.

Input/output interface 16 is further capable of input a control signal transmitted on infra red ray 20 from remote controller 18 and received by control signal receiver 22, which is reported to television set processor 12 for necessary function. Remote controller 18 is to be manually operated for the purpose of turning on/off the main power of television set 2, selecting channels of television stations, and adjusting the audio volume of television set 2. Remote controller 18 further serves as a graphical user interface (GUI) in conjugation with television display 26, in such a manner that remote controller 18 operates various visual buttons displayed on television display 26 or selects among operations in a menu displayed on television display 26. Some signal from remote controller 18 received by control signal receiver 22 is also capable of being directly transmitted to tuner 6 on necessity. Tuner 6, which receives a digital broadcast television program content transmitted on digital airwave 4 from television station 5 as has been mentioned above, will replace television station 5 with another television station in response to a channel selection signal of remote controller 18 directly transmitted by way of control signal receiver 22.

Display driver 24 responsive to data signal from tuner 6 drives television display 26 to display a digital broadcast television program content on television display 26. Display driver 24 further responsive to data signal from display memory 28 drives television display 26 to display a computer display signal transmitted by way of input/output interface 16 under control by television set processor 12. The computer display signal is displayed on television display 26 in such a manner that the display signal is superimposed on a part of digital broadcast television program content as a GUI display in cooperation with remote controller 18. The computer display signal may be alternatively displayed on television display 26 in such a manner that the display signal replaces the entire digital broadcast television program content as an operation menu or a broadcast program schedule table, which is to be selected by an operation at remote controller 18. A digital broadcast television program content received by tuner 6 can also be transmitted to input/output interface 16, and in turn stored in memory 14 in response to remote controller 18 as in the similar manner to the case of the ordinary video tape recorder.

On the other hand, a digital moving image program content provided by server station 9 through internet 8 and stored in memory 14 is converted into moving image data under the control of television set processor 12 to be transmitted to display memory 28 by way of input/output interface 16, and in turn to display driver 24. If display driver 24 under the control of television set processor 12 selects moving image data from display memory 28 in place of that from tuner 6, a digital moving image program content provided by server station 9 though internet 8 is displayed on television display 26 in place of the digital broadcast television program content from television station 5. In this case, an on-demand or live digital moving image program

content can be directly provided by server station 9 and displayed on television display 26 in almost real time by means of the streaming technology. Another example of the real time digital moving image program contents provided by server station 9 through internet 8 on the streaming technology is a digital moving image program provided in accordance with a program schedule table voluntarily determined by server station 9 in a similar manner to the case of television station 5.

As in the above, television set 2 according to the embodiment of this invention in Fig. 1 can enjoy both the digital broadcast television program contents from television station 5 on digital airwave 4 and digital moving image program contents provided by server station 9 through internet 8. Further, television set 2 according to the embodiment of this invention in Fig. 1 can not only select between a digital moving image content on air and a digital moving image content downloaded through internet 8, but also can combine both in advantageous manners, which will be explained in accordance with the following flow charts. For the combination in the advantageous manner, server processor 30 in server station 9 participates, the detailed explanation of which will also follow.

As has been mentioned, the digital moving image contents enjoyable on television display 26 are not only the digital moving image program contents on air by television station 5 or the digital moving image contents downloaded from server station 9 through internet 8 and stored in memory 14, but also a real time digital moving image contents provided by server station 9 on the streaming technology. In the case of a real time digital moving image content downloaded from server station 9 through streaming technology, Uniform Resource Locator (URL) for accessing such real time digital moving image content is considered as a channel of a broadcast station

provided that server station 9 is prepared to regularly provide the real time digital moving image program contents in accordance with a program schedule table similar to that by television station 5.

Fig. 2 is a basic flowchart showing the function carried out by television set processor 12 of television set computer 10 in Fig. 1. The flowchart starts when television set 2 is connected to the power receptacle, and it is checked in step S2 whether or not television set 2 is turned on. If not, step S2 is repeated to wait the power turn on operation. The "turn on operation" to be checked in step S2 broadly means an operation to turn on the main switch or the like by a user willing to turn on television set 2. For allowing such operation, a power switch is normally turned on in advance for making television set 2 in a standby state capable of detecting turn on operation at remote controller 18. Accordingly, "turn on operation" should not be strictly construed to the turning on of the power switch for truly turning on the television set 2, but is construed to include the turn on operation at remote controller 18 or the like with the power switch having been turned on in advance for the standby state.

If it is determined that television set 2 is turned on, the flow advances to step S4 to check whether or not such a history is recorded in memory 14 that television set was turned off after television set 2 had been connected to the power receptacle. If such the record is detected in step S4, the flow goes to step S6 to recall the status of television set 2 right before the latest turning-off.

Next in step S8, it is checked whether or not the status of television set 2 right before the latest turning-off operation was to select a real time digital moving image content such as broadcast program. In such the case, the flow goes to step S10 to

recall the channel selected when television set 2 was turned off at the previous time. This is because that the latest channel is presumed to be of the most interested one. As has been mentioned, in the case of a real time digital moving image content downloaded at input/output interface from server station 9 through internet 8 on streaming technology, Uniform Resource Locator (URL) for accessing such real time digital moving image content is considered as the latest channel. For the purpose of enabling the above case of streaming, television set computer 10 comes into constant connection status to internet 8 in step S11.

The flow then goes to step S12 for instructing display driver 24 to start displaying the digital moving image content. In the case of step S12 following step S10, the digital moving image content currently on air through a channel equal to the latest one is displayed. Though control lines are omitted in Fig.1 for the sake of simplification, tuner 6 and input/output interface 16 are controlled by television set processor 12, respectively, for the purpose of providing display driver 24 with the necessary digital moving image contents data.

On the other hand, if it is not detected that the status of television set 2 right before the latest turning-off operation was to select a real time digital moving image content, the flow goes to step S14 to check whether or not television set 2 was tuned off in the course of playing a digital moving image content recorded in memory 14. In such a case, the flow goes to step S16 to carry out record recall process in which the digital moving image content interrupted by the latest turning off operation of television set 2 is retrieved. Further in step S18, the position where the digital moving image content is interrupted is searched for restarting the content from the interrupted position. Step S18 is also followed by step S12 for instructing display

driver 24 to start displaying the digital moving image content. In the case of step S12 following step S18, the play of digital moving image content, which has been interrupted in the course of the play, is restarted from the interrupted position. This function is carried out automatically in response to the detection of turning-on of television set 2 at step S2. Thus, the user, who has put a halt to the play of the digital moving image content by turning off television set 2, can enjoy the rest of the same digital moving image content by means of simply turning on television set 2.

If it is not detected in step S14 that television set 2 was tuned off in the course of playing a digital moving image content recorded in memory 14, it means that the digital moving image content was completely enjoyed to its end and television set 2 was then turned off. In other words, there is no digital moving image content with any unfinished part to be recalled and viewed when television set 2 is turned on. So, the flow goes to step S10 to recall the latest channel which was selected by television set 2 before selecting the digital moving image content recorded in memory 14. By the way, if it is not detected in step S4 that any history is recorded in memory 14 that television set was turned off after television set 2 had been connected to the power receptacle, the flow goes to step S20 to automatically select a predetermined channel to go to step S12. In the absence of step S20, the flow would reach step S12 without selection of channel for television set 2 to start display in response to the turning on thereof. The channel predetermined for step S20 may have been manually or automatically selected depending on the user, or may be generally set as the default channel.

After the start of displaying the digital moving image content in step S12, the flow goes to step S22 with the display continued. In step S22, it is checked whether or not an operation is done to change the channel selection. If such an operation is

detected, the flow goes to step S24, in which channel selection changing process is carried out, followed by step S26. The channel selection changing process includes a change from a channel for broadcast program to the play of digital moving image content stored in memory 14. The detail of channel selection changing process in step S24 will be explained later. On the other hand, if it is not detected that any operation is done to change the channel selection, the flow directly goes to step S26

Step S26 is to check whether or not such an operation is done that the position of the digital moving image content to start with is optionally shifted from the position currently displayed. The position to be optionally shifted includes the beginning of the content. If such the operation is detected in step S26, the flow goes to step S28 to carry out optional shift process to realize the desired shift of position. The optional shift operation is mainly done under the condition that a real time digital moving image content on air from television station 5 or downloaded from server station 9 on streaming is displayed on television display 26 in response to the turning-on or channel change of television set 2. In other word, the optional shift operation is expected to be done when a television set turning-on or channel changing operation is done by a user with any specific digital moving image content not in mind to feel interest in the content appearing on television display 26 by chance in response to the turning-on or channel changing operation. And, such the user may desire to instantly view the interested content from an optional position such as the beginning. The detail of optional shift process will be explained later.

On the other hand, if the optional shift operation is not detected in step S26, the flow goes to step S30 to check whether or not a recording operation is done. And, if the recording operation is detected, the flow goes to step S32 to carry out recording

process. It should be noted here that the recording process 32 is to record the digital moving image content from the beginning to the end of that in contrast to the conventional recording in which the recording is done from the position of the content where the recording operation is done. The detail of the recording operation will be explained later. Also the recording operation is mainly done under the condition that a real time digital moving image content on air from television station 5 or downloaded from server station 9 on streaming is displayed on television display 26 in response to the turning-on or channel change of television set 2. In other word, the recording operation is expected to be done when a television set turning-on or channel changing operation is done by a user with any specific digital moving image content not in mind to feel interest in the content appearing on television display 26 by chance in response to the turning-on or channel changing operation. And, such the user may desire to record the interested contents for the purpose of viewing it later from the beginning.

On the other hand, if the recording operation is not detected in step S30, the flow goes to step S34 to check whether or not an operation is done to turning-off television set 2. And, if the television set turning-off operation is detected in step S34, the flow goes to step S36 to carryout recording control process, the details of which will be explained later. Further, in step S38, the status of television set 2 right before the turning-off is stored in memory 14 and the turning-off of television set 2 is carried out. The flow then goes back to step S2. Due to the function in step S38 to store the status of television set 2, various checks and functions to be carried out in steps S4 to S10 and steps S14 to S18 are made possible.

On the other hand, if the television set turning-off operation is not detected in step S34, the flow goes back to step S22 to repeat the loop of steps S22 to 26, S30 and

34 unless one of the optional shift operation, the recording operation and the television set turning-off operation is detected in one of steps S26, S30 and S34, respectively. And, during the repetition of the loop, the display on television display 26 is continued and prepared to respond to any of the channel changing operation, the optional shift operation and the recording operation.

In the case of returning from step S38 to step S2, the flow goes into the stage of waiting a next turning-on operation by repeating step 2, and the flow advances to the steps led by step S4 if the next turning-on operation is detected in step S2. It should be noted that optional shift process in step 28 and recording process in step S32 are both include a step to return to step 2, which will be explained later in detail.

Fig. 3 is a flowchart showing the detailed function of the channel changing process in step S24 in Fig. 2. If the flowchart starts, it is checked in step S42 whether or not television set computer 10 has been connected to internet 8. If not, the flow goes to step S44 to instruct the constant connection to internet 8, and advances to step S46. By this, the preparation for internet communication during the channel changing process is secured. On the other hand, if it is checked in step S42 that television set computer 10 has been connected to internet 8, the flow directly goes to step S46.

In step S46, it is checked whether or not a conventional channel for broadcast program has been selected in step S22 in Fig. 2. If it is the case, the flow goes to step S48 to direct the selected channel and advances to step S50. In step 50, it is directed to start displaying the digital moving image content, the flow then going to the end. In this case, a new channel of digital moving image content starts to be displayed, which is seemingly identical with the channel changing in the conventional television

set.

On the other hand, if it is not detected in step S46 that a conventional channel for broadcast program has been selected in step S22 of Fig. 2, the flow goes to step S52, in which it is checked whether or not a “channel” of server station 9 has been selected in step S22 of Fig. 2. If it is the case, the flow goes to step S54 to direct URL relating to the server station 9. The directed URL is for directly designating data of the digital moving image content prepared by server station 9 in accordance with a program schedule table. Next in step S56, it is checked whether or not the digital moving image content for the URL is provided by live streaming. If it is the case, the flow goes to step S58 to direct real time display and the flow goes to step S50 in which the digital moving image content starts to be displayed from a position currently provided in real time by means of the live streaming. The flow then goes to the end. Also in this case, the display in response to the channel changing operation in step S22 in Fig. 2 is seemingly identical with the channel changing to a live remote broadcast program in the conventional television set.

If it is determined in step S56 that URL directed in step S54 is not the digital moving image content provided by live streaming, the flow goes to step S60. In step S60, the beginning of the digital moving image content for the URL is directed as the point to start with. Next, the flow is advanced to step S50 for carrying out the starting of the content with its beginning, the flow then going to the end. In this case, the digital moving image content is started in step S50 with the beginning every time in response to a new selection of “channel”, which is similar to the case of playing back a recorded digital moving image content. On the other hand, the series of function carried out by steps S54, S56, S60 and S50 is similar to the case of normal broadcast

digital moving image content provided by television station 5 in accordance with a program schedule table in that a user cannot independently select a digital moving image content itself but can merely select a “channel” in which server station 9 exclusively determine or substitute a digital moving image content for the URL regarded as a “channel”.

If it is not determined in step S52 that a “channel” of server station 9 has been selected, it means that the channel selection in step S22 of Fig. 2 is for retrieving a digital moving image content recorded in memory 14. In this case, accordingly, the flow goes from step S52 to step S62 in which record recall process is carried out, the details of step S62 being to be explained later. Next, in step S64 it is checked whether or not the retrieved digital moving image content is in such a condition that the content was interrupted in the course of playing thereof. In such a case, the flow goes to step S66 to search the position where the digital moving image content is interrupted for restarting the content from the interrupted position in step S50. This function is carried out automatically in response to the detection of a new selection of “channel”. Thus, the user, who has put a halt to the play of the digital moving image content by selecting another “channel”, can enjoy the rest of the same digital moving image content by means of simply select the same “channel”.

On the other hand, if it is not determined that the retrieved digital moving image content is in such a condition that the content was interrupted in the course of playing thereof, the flow goes to step S68 to direct the beginning of the retrieved digital moving image content as the point to start with in step S50. In this case, the user can enjoy the digital moving image content from the beginning by means of simply select a “channel”. This is similar to the case of the function carried out in accordance with

the flow from step S60 to step S 50.

Fig. 4 is a flowchart showing the detailed function of the optional shift process in step S28 in Fig. 2. If the flowchart starts, it is checked in step S72 whether or not television set computer 10 has been connected to internet 8. If not, the flow goes to step S74 to instruct the constant connection to internet 8, and advances to step S76. By this, the preparation for internet communication during the optional shift process is secured. On the other hand, if it is checked in step S72 that television set computer 10 has been connected to internet 8, the flow directly goes to step S76.

In step S76, it is checked whether or not the optional shift operation detected in Step S26 is done during the play of the digital moving image content recorded in memory 14. If it is the case, the flow advances to step S78, in which recorded content optional shift process is carried out. The recorded content optional shift process in step S78 is similar to well known functions for conventional picture recorder, such as the first-forward function, or the skipping function or the selection among chapters of a chaptered digital moving image content. When a position of the recorded moving image content has been determined through step S78, the flow goes to step S80 to issue a direction to start displaying the digital moving image content with the determined position, the flow then going to the end. As has been mentioned above, this function is similar to that in conventional video recorders or DVD recorders.

On the other hand, if it is not determined in step S76 that the optional shift operation detected in Step S26 is done during the play of the digital moving image content recorded in memory 14, the flow goes to step S82. In step S82, it is checked whether or not the optional shift operation detected in Step S26 is done during broadcast channel selection of television station 5. If it is the case, the flow advances

to step S84 to direct URL of server station 9 for digital moving image content corresponding to the broadcast digital moving image program from television station 5. For making the above function possible, both television 5 and server station 9 are providing the same digital moving image contents in cooperation. Further in step S86, it is checked whether or not the digital moving image content designated with URL is capable of being provided by means of streaming to go to step S88 if streaming is possible.

In step S88, the digital moving image content designated by URL is divided into chapters in unit of packet or group of packets and a view format of chapters is displayed on television display 26 for facilitating the optional shift by means of a selection of the chapter with which the digital moving image content is to start. The flow advances to step S90 with the display started in step S88 continued. In step S90, it is checked whether or not a chapter is selected by means of GUI in combination of remote controller 18 and television display 26. If chapter selection is detected in step S90, the flow goes to step S92 to download the packet corresponding to the selected chapter, the digital moving image content being instantly started with the selected chapter by means of streaming in step S80 as soon as the corresponding packet is downloaded. Thus, if a user meets a midstream of some broadcast digital moving image content provided in accordance with a scheduled program by chance of selecting a channel and gets interested in the content, the user can enjoy the content at any desirable position, including the beginning, of the content.

On the other hand, it is not determined in step S90 that a chapter is selected, the flow goes to step S94, in which it is checked whether or not the time since the display started in step S88 has past over a limit. If not, the flow returns to step S88 to

repeat steps S88 to S94 with the display started in step S88 continued unless the time has past or chapter selection is detected. The case of detection of chapter selection in step S90 has been above explained.

If it is determined in step S94 that the time since the display started in step S88 has past over a limit, the flow goes to step S96 to download the packet corresponding to the beginning of the digital moving image content, the digital moving image content being instantly started with the beginning by means of streaming in step S80 as soon as the corresponding packet is downloaded. Thus, if a user meets a midstream of some broadcast digital moving image content provided in accordance with a scheduled program by chance of selecting a channel and gets interested in the content, the user can enjoy the content from its beginning by means of simply make the optional shift operation with remote controller 18, which is detected in step S26 of Fig. 2 and the rest of necessary functions are all automatically carried out even if no further operation will be done.

On the other hand, if it is not determined in step S82 that optional shift operation detected in Step S26 is done during broadcast channel selection for television station 5, it means that the optional shift operation detected in Step S26 is done during URL (i.e., "channel") selection for the real time digital moving image program contents provided by server station 9 through internet 8 on the streaming technology in accordance with a program schedule table voluntarily determined by server station 9 in a similar manner to the case of television station 5. So, the flow directly goes from step S82 to step S88 in this case. In other word, since the URL has already determined as well as the streaming possibility has already confirmed in this case, the flow can directly goes to step S88 with steps S84 and S86 omitted. The function led by

step S88 in the case of directly coming from step S82 is identical with the case of broadcast channel selection with no additional explanation needed.

If it is not determined in step S86 that the digital moving image content designated with URL is capable of being provided by means of streaming, the flow goes to step S98 for hole data download process, in which the whole data necessary for playing the entirety of the digital moving image content is downloaded. And, if the download has been completed in step S98, the flow goes to step S96. In step 98 in this case, the beginning of the downloaded whole data is automatically get ready for starting in step S80. In other words, the content gotten by the whole data download is automatically started with the beginning since the content is not divided into chapters in unit of packet or group of packets in terms of streaming which is treated in steps S88 and S90.

Fig. 5 is a flowchart showing the detailed function of the recording process in step S32 in Fig. 2. If the flowchart starts, it is checked in step S102 whether or not television set computer 10 has been connected to internet 8. If not, the flow goes to step S104 to instruct the constant connection to internet 8, and advances to step S106. By this, the preparation for internet communication during the recording process is secured. On the other hand, if it is checked in step S102 that television set computer 10 has been connected to internet 8, the flow directly goes to step S106.

In step S106, it is checked whether or not the recording operation detected in step S30 in Fig. 2 has been done during conventional channel selection of broadcast program by television station 5. If it is the case, the flow advances to step S108 to direct URL of server station 9 for digital moving image content corresponding to the broadcast digital moving image program from television station 5. For making the

above function possible, both television 5 and server station 9 are providing the same digital moving image contents. Further in step S110, it is checked whether or not the digital moving image content designated with URL is capable of being provided by means of streaming to go to step S112 if streaming is possible.

On the other hand, if it is not determined in step S106 that the recording operation detected in Step S30 is done during broadcast channel selection for television station 5, the flow directly goes to step S112. No detection in step S30 of the recording operation during broadcast channel selection means that the recording operation is done during enjoying digital moving image content provided by server station 9 through streaming technology since there is no such a case that the recording operation is done during the play of the digital moving image content recorded in memory 14. Thus, the above flow is designed to directly go from step S106 to step S112 in this case as in the case that the streaming possibility is determined in step S110.

In step S112, an expiration date after which the digital moving image content will be no more provided is confirmed to check whether the expiration date is controllable. Here "controllable" means that server station 9 guarantees that it continues to provide the content until the expiration date without fail and also a predetermined sufficient time (e.g., one week) is left before the expiration date.

If it is confirmed that the expiration date controllable, the flow goes to step S118 to add URL for the digital moving image content for enjoying the content from the beginning by means of streaming technology, the URL being added to a list of "recorded contents". Further in step S120, the URL is added to a list of "controlled contents", the flow then going to the end. In other words, if the content to be recorded is possible to be provided by streaming in the future and the expiration date is controllable, the

date itself of the digital moving image content is not downloaded in response to the recording operation, but URL of the content is recorded for starting the content upon an operation for "play of recorded content" and the control of the expiration date is secured. Process of "recalling" the contents "recorded" in the above manner will be explained later.

On the other hand, if it is not determined in step S110 that the digital moving image content designated with URL is capable of being provided by means of streaming, the flow goes to step S122 for hole data download process, in which the whole data necessary for playing the entirety of the digital moving image content is downloaded. And, if the download has been completed in step S122, the flow goes to step S124 for deleting the URL from "controlled contents", the flow then going to the end. Similarly, if it is not determined in step S112 that the expiration date is controllable, the flow goes to step S122 for hole data download process. And, if the download has been completed in step S122, the flow goes to step S124 for deleting the URL from "controlled contents", the flow then going to the end also in this case.

Fig. 6 is a flowchart showing the detailed function of the record recall process in step S16 in Fig. 2 or in step S62 in Fig. 3. If the flowchart starts, it is checked in step S132 whether or not whole the data of the digital moving image content has been downloaded and recorded in memory 14 in compressed form. If whole the data has been downloaded, the flow goes to step S134 to recall the compressed data from memory 14. And it is checked in step S136 whether or not such information is recorded that the digital moving image content has been interrupted at some position during playing the content. If it is determined in step S136 that the information of interruption is recorded, the flow goes to step S138 for preparing to decompress the

recalled data of the content for restarting the content at the interrupted position, the flow then going to the end. On the other hand, if it is not determined in step S136 that the information of interruption is recorded, the flow goes to step S140 for preparing to decompress the recalled data of the content for starting the content from the beginning, the flow then going to the end also in this case.

If it is not determined in step S132 that whole the data of the digital moving image content has been downloaded, the flow goes to step S142 to recall URL form the list of “recorded contents”. The URL is not only for designating server station 9, but also directly identifying the digital moving image content “recorded”. And it is checked in step S144 whether or not such information is recorded that the digital moving image content has been interrupted at some position during streaming of the content. If it is determined in step S144 that the information of interruption is recorded, the flow goes to step S146 for identifying the packet corresponding to the interrupted position to restart the content therefrom, the flow then going to the end. On the other hand, if it is not determined in step S144 that the information of interruption is recorded, the flow goes to step S148 for identifying the packet corresponding to the beginning of the content to restart the content therefrom, the flow then going to the end also in this case.

The functions mentioned in steps S138, S140, S146 and S148 all relate to preparation of data or information necessary in the succeeding processes. In more detail, the data or information above are utilized as an object to be searched or directed in step 18 in Fig. 2 or steps S66 or S68 in Fig. 3 for enjoying the digital moving image contents. Further, URL's for identifying packets treated in steps S146 and S148 are also utilized in steps S58 and S60 in Fig. 3 and steps S92 and S96 in Fig. 4.

Fig. 7 is a flowchart showing the detailed function of the record control process in step S36 in Fig. 2. The flow in Fig. 2 is for controlling URL's added to the "recorded contents" through step S118 in Fig. 5. If the flow starts, it is checked in step S152 whether or not URL is recorded in the "recorded contents". If any, the flow goes to step S154 to access all the recorded URL's one by one for confirming and updating any change in the expiration date.

Next in step S156, each of the updated expiration dates is compared with today's date and check whether or not any URL with uncontrollable expiration date exists. Here "uncontrollable" means that a predetermined sufficient time (e.g., one week) is no more left before the expiration date. In other words, "uncontrollable" means that whole the data of the content should be urgently download to secure it in memory 14, otherwise there will be a risk of losing any chance of enjoying the content afterward. If such a URL is detected in step S156, the flow goes to step S158 to select one URL with the most urgent expiration date if a plurality of URL's are detected. And, the whole data of the selected URL is downloaded at hole data download process in step S160. And, if the download has been completed in step S122, the flow goes to step S162 for deleting the URL from "controlled contents", the flow then going back to step S156.

In step S156, it is checked again whether or not any URL with uncontrollable expiration date exists among the remaining URL's. If such a URL is detected in step S156 again, the flow goes to step S158 again. In this manner, the loop of steps S156 to S162 is repeated unless no URL with uncontrollable expiration date is detected in step S156. On the other hand, if no URL with uncontrollable expiration date is detected in step S156, the flow is to instantly go to the end. Further, if it is not detected in step

S152 that URL is recorded in the “recorded contents”, the flow is to instantly go to the end.

Fig. 8 is a flowchart showing a partial function carried out by server processor 30 of server station 9 in cooperation with television set processor 12 of television set computer 10 in Fig. 1. The partial function relates to the cooperation with television server 5 and the control of expiration date for each of the digital moving image contents. Server processor 30 includes not only a central processing unit (CPU) in the narrow sense, but also various peripheral units such as communication unit which are necessary for the server though the details such units are omitted in Fig. 1. The flowchart in Fig. 8 starts in response to the initial rise of server processor 30 so that it is checked in step S172 whether or not new digital moving image content is uploaded for providing it through internet 8. The “new digital moving image content” is of just the same content as that of the digital moving image content provided by television station 5 through digital airwave 4.

If it is confirmed in step S172 that the new digital moving image content is uploaded, the flow goes to step S174 to provide the uploaded digital moving image content with information indicative of the tight relationship with the same digital moving image content provided by television station 5. Further in step S176, the uploaded digital moving image content is provided with information indicative of its expiration date, the flow then going to step S178. On the other hand, if it is not confirmed in step S172 that the new digital moving image content is uploaded, the flow directly goes to step S178.

In step S178, it is checked whether or not time is up for one of digital moving image contents which is to be provided on time through streaming technology in

accordance with a predetermined “broadcast program schedule table”. If any, the flow goes to step S180 to provide the content with “regular program URL” indicative of a slot in the “broadcast program schedule table”, the flow then going to step S182. On the other hand, if it is not confirmed in step S178 that time is up for any of the scheduled digital moving image content, the flow directly goes to step S182. Thus, if the “regular program URL”, which is broadly considered as a channel of a broadcast station, is selected by television set 2 during the slot for the program, the digital moving image content is automatically provided through streaming technology by server station 9 from a packet corresponding to the time when the “regular program URL” is selected. In other words, the digital moving image content is provided through streaming technology by server station 9 in the very similar manner to that in the conventional television program provided by television station 5. In more detail, if the “regular program URL” is selected on time of “broadcast program schedule table”, the digital moving image content will be enjoyed from its beginning. In contrast to that, if the “regular program URL” is selected in midstream of the slot of “broadcast program schedule table”, the digital moving image content will be enjoyed from the midstream of the content corresponding to the time.

In step S182, it is checked whether or not time is up for a live digital moving image content which is to be provided on time through streaming technology in accordance with a predetermined “broadcast program schedule table”. If any, the flow goes to step S184 to carry out live streaming starting process, in which live image is captured as streaming data and the provision of the captured image through streaming technology is started. Further in step S186, the captured live digital moving image content is provided with information indicative of its expiration date, the flow then

going to step S188. On the other hand, if it is not confirmed in step S182 that time is up for any live digital moving image content, the flow directly goes to step S188. Thus, if the URL for live streaming, which is also broadly considered as a channel of a broadcast station, is selected by television set 2 during the slot in the "broadcast program schedule table", the digital moving image content is automatically provided through streaming technology by server station 9 from a packet corresponding to the time when the URL for live streaming is selected.

In other words, the live digital moving image content is provided through streaming technology by server station 9 in the very similar manner to that in the conventional live television broadcast program provided by television station 5. In more detail, if the URL for live streaming is selected on time of "broadcast program schedule table", the live digital moving image content will be enjoyed from its beginning. In contrast to that, if the URL for live streaming is selected in midstream of the slot of "broadcast program schedule table", the live digital moving image content will be enjoyed from the midstream of the content corresponding to the time when the URL is selected. The live digital moving image content above is kept in server station 9 until the expiration date given in step S186. Accordingly, if the live digital moving image content is unfortunately missed on time, it is generally possible to enjoy the content afterward. For example, if such live digital moving image content is to be rerun in accordance with "broadcast program schedule table", the content can be enjoyed by means of the function of steps S178 and S180 in the same manner as that of general streaming program. In case of no plan of rerun in accordance with "broadcast program schedule table", it is still possible to enjoy the missed content until its expiration date by mean of "archive function" explained later.

In step S188, it is checked whether or not any streaming digital moving image content has been provided acting on in accordance with the “broadcast program schedule table”. If any, the flow goes to step S190 to provide the content with a specific URL indicative of “archive” digital moving image content, the flow then going to step S192. On the other hand, if it is not confirmed in step S188 that any streaming digital moving image content has been provided acting on in accordance with the “broadcast program schedule table”, the flow directly goes to step S192. The digital moving image content provided with the “archive” URL corresponds to a digital moving image content which is not planned to be provided acting on “broadcast program schedule table”, but is merely kept for provision on demand when the content is designated with the “archive” URL in accordance with a selection or search into the archive list. The digital moving image content with the “archive” URL can also be provided when the “archive” URL is designated through any of the functions in Fig.4 to Fig.6.

In step S192, it is checked whether or not the expiration date for any digital moving image content is reached. If any, the flow goes to step S194 to delete the digital moving image content from the archive of server station 9. Further, in step S196, the URL given to the deleted content is also cancelled, the flow then going to step S198. On the other hand, if it is not confirmed in step S192 that the expiration date for any digital moving image content is reached, the flow directly goes to step S198.

In step S198, it is checked whether or not a regular maintenance date for server station 9 has come to go to the end if it is the case. On the other hand, if it is not confirmed in step S198 that the regular maintenance date for server station 9 has come, the flow goes back to step S172 to repeat steps S172 to S198 unless the

maintenance date is detected in step S198. The repetition of steps S172 to S198 achieves control of various digital moving image contents in data base 32 of server station 9 in reacting on various changes caused during the repetitions.

In the above description, the “regular program URL” for digital moving image content provided by servers station 9 is broadly considered as a “channel” of a broadcast station such as television station 5. In other words, the provision of digital moving image content by server station 9 through streaming technology is achieved in the very similar manner to that in the conventional television program provided by television station 5. In the same sense, television station 5 can be broadly considered as a “provider” of digital moving image contents in such a case that the “regular program URL” for digital moving image content provided by server station 9 is broadly considered as a “channel” for television station 5.

Various features of this invention are not only applicable to the above embodiment, but also widely to other embodiments. For example, the feature of control of the expiration date of the contents and the automatic download of the contents data explained in Fig. 5 through Fig. 8 are not applicable to the case of digital moving image contents data, but also widely to other contents data such as still image contents data or text data. In more detail in the case of obtaining content data through internet, download of the content data itself may not be actually carried out provided that the expiration date of the content data on the server is securely confirmed. Instead in this case, information such as “book mark” necessary for accessing again the content data is merely recorded so that actual download is to be automatically carried out when the expiration date comes close or becomes unclear. According to this application, redundant download of content data can be saved or

avoided and at the same time such inexpediency is overcome that "book marked" content data has been deleted when the data is accessed again for actual download or review.

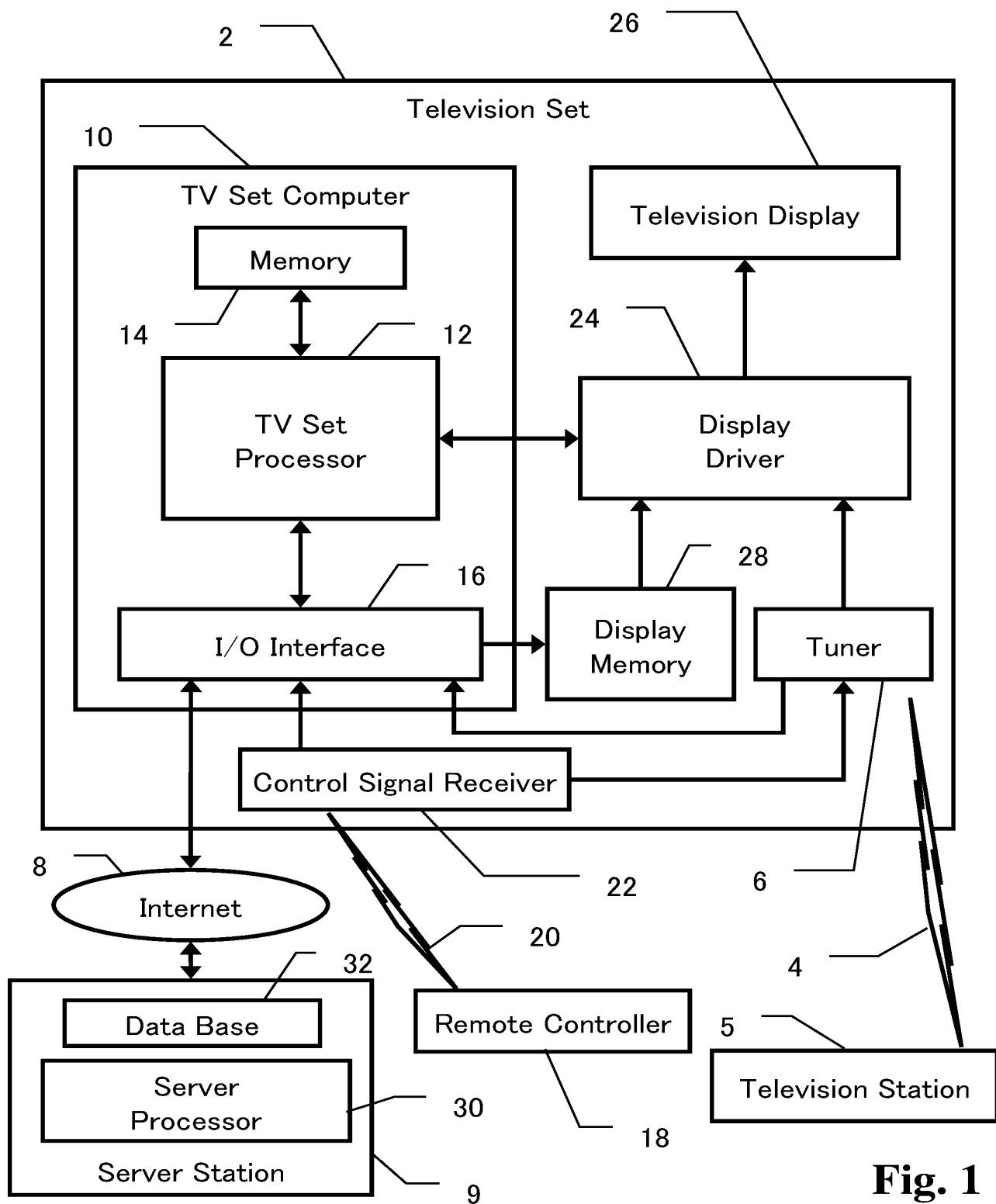


Fig. 1

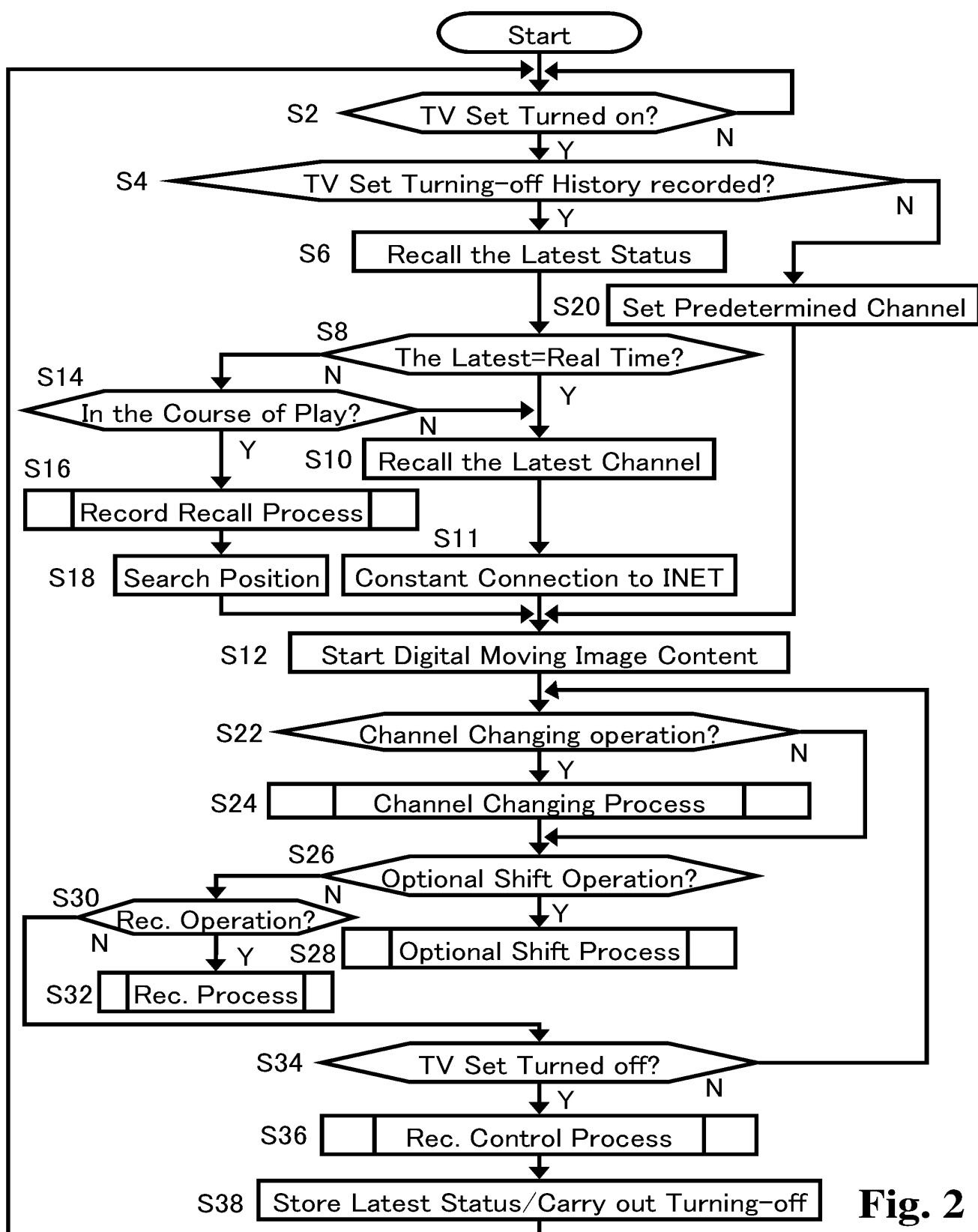


Fig. 2

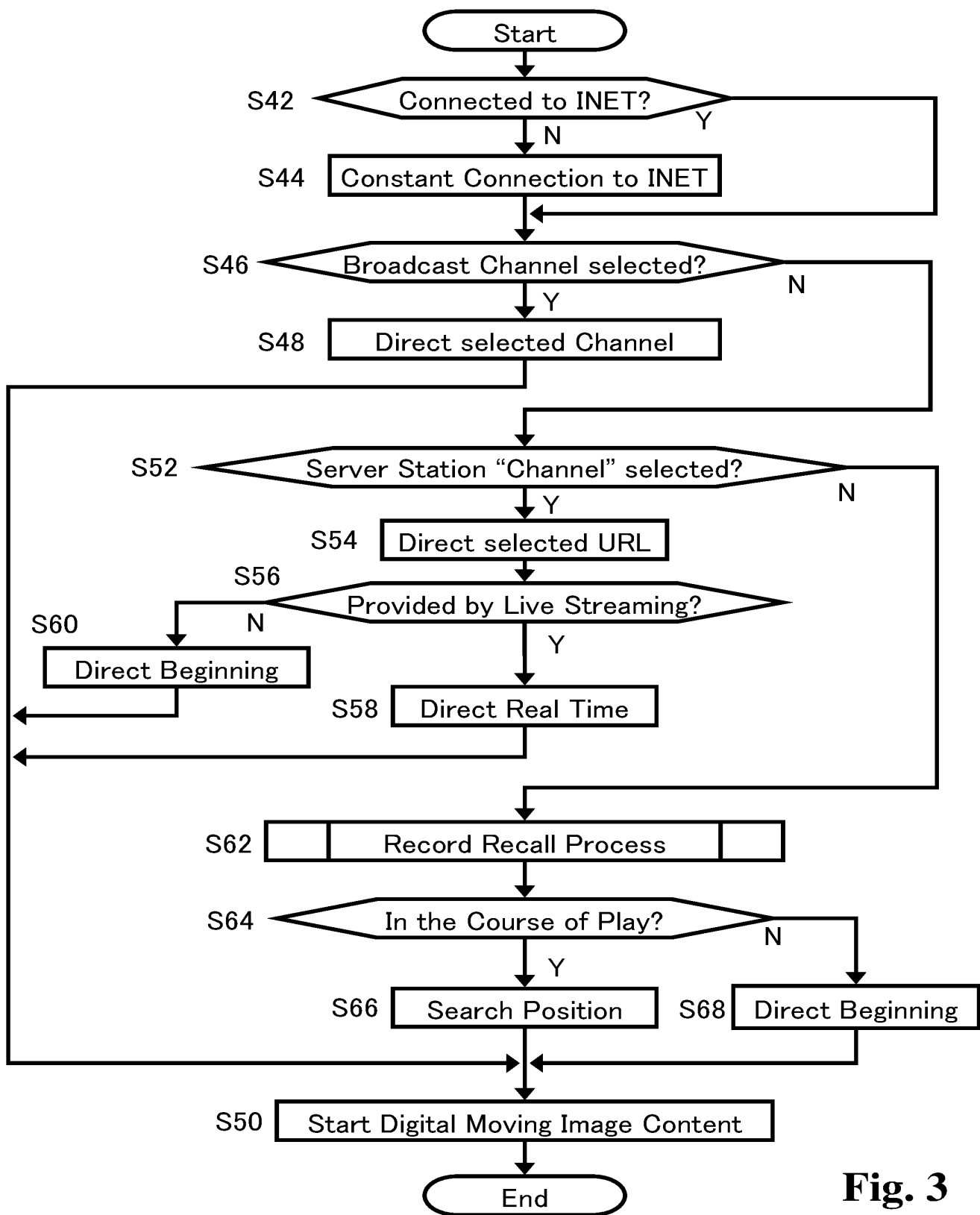


Fig. 3

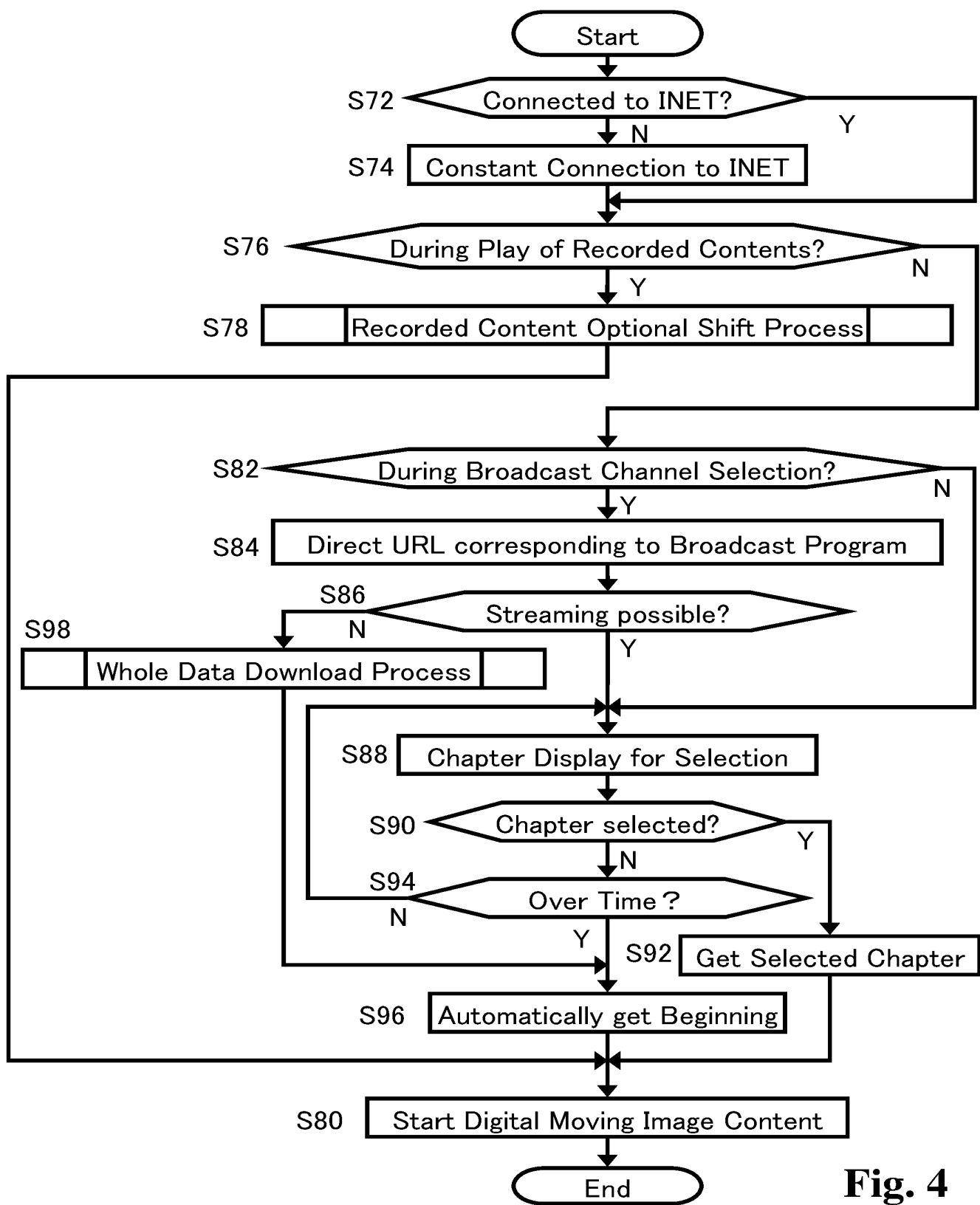


Fig. 4

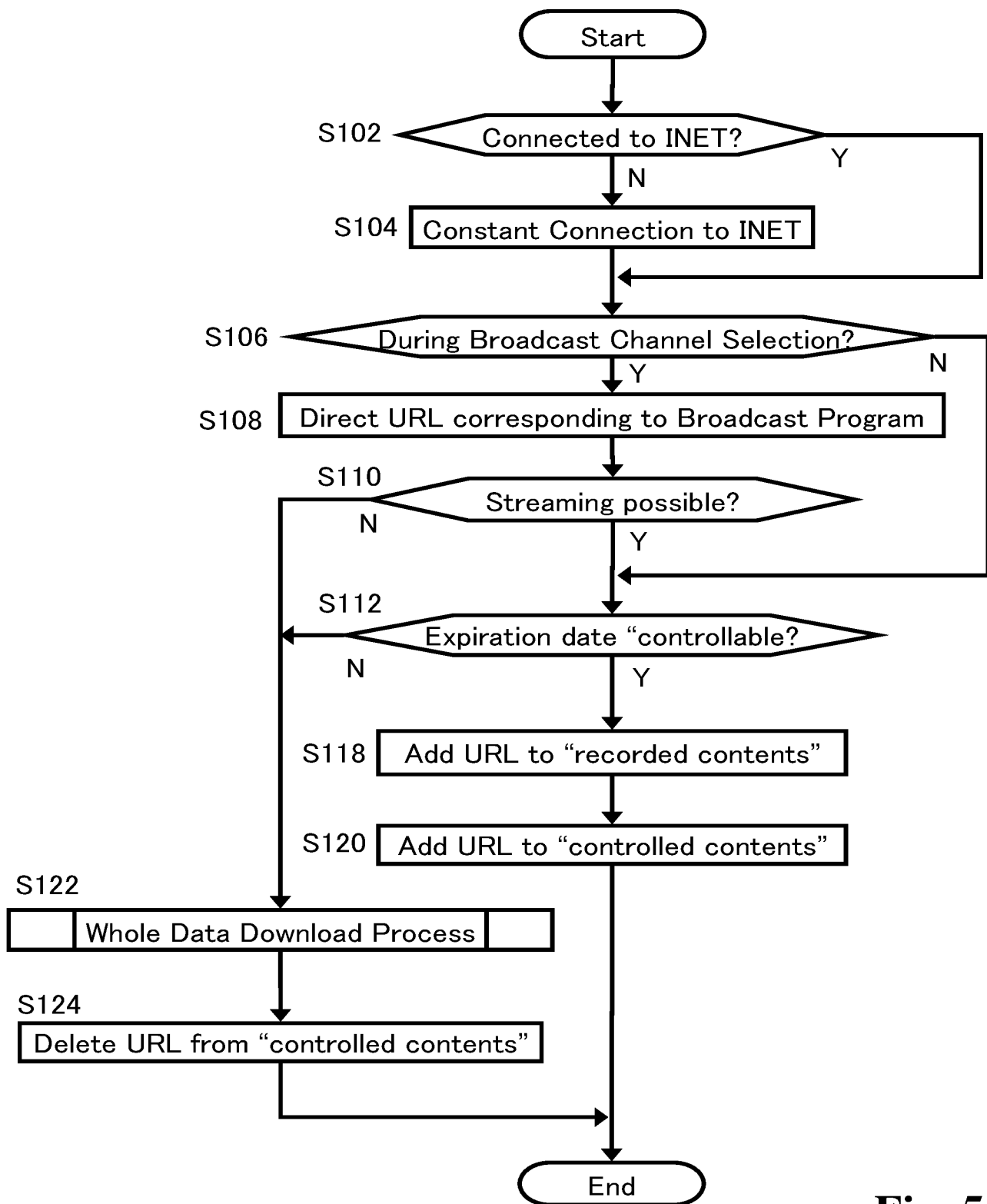


Fig. 5

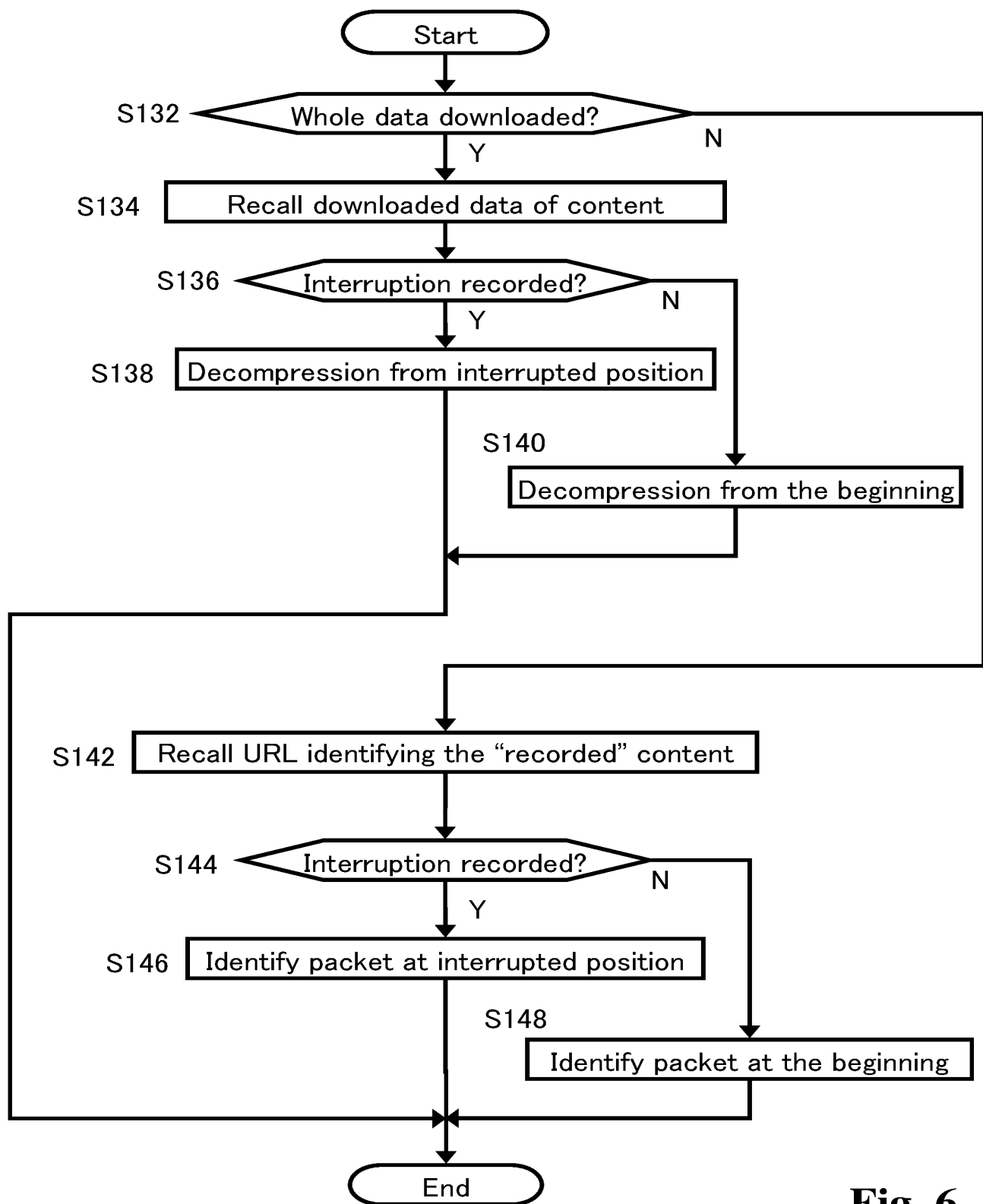


Fig. 6

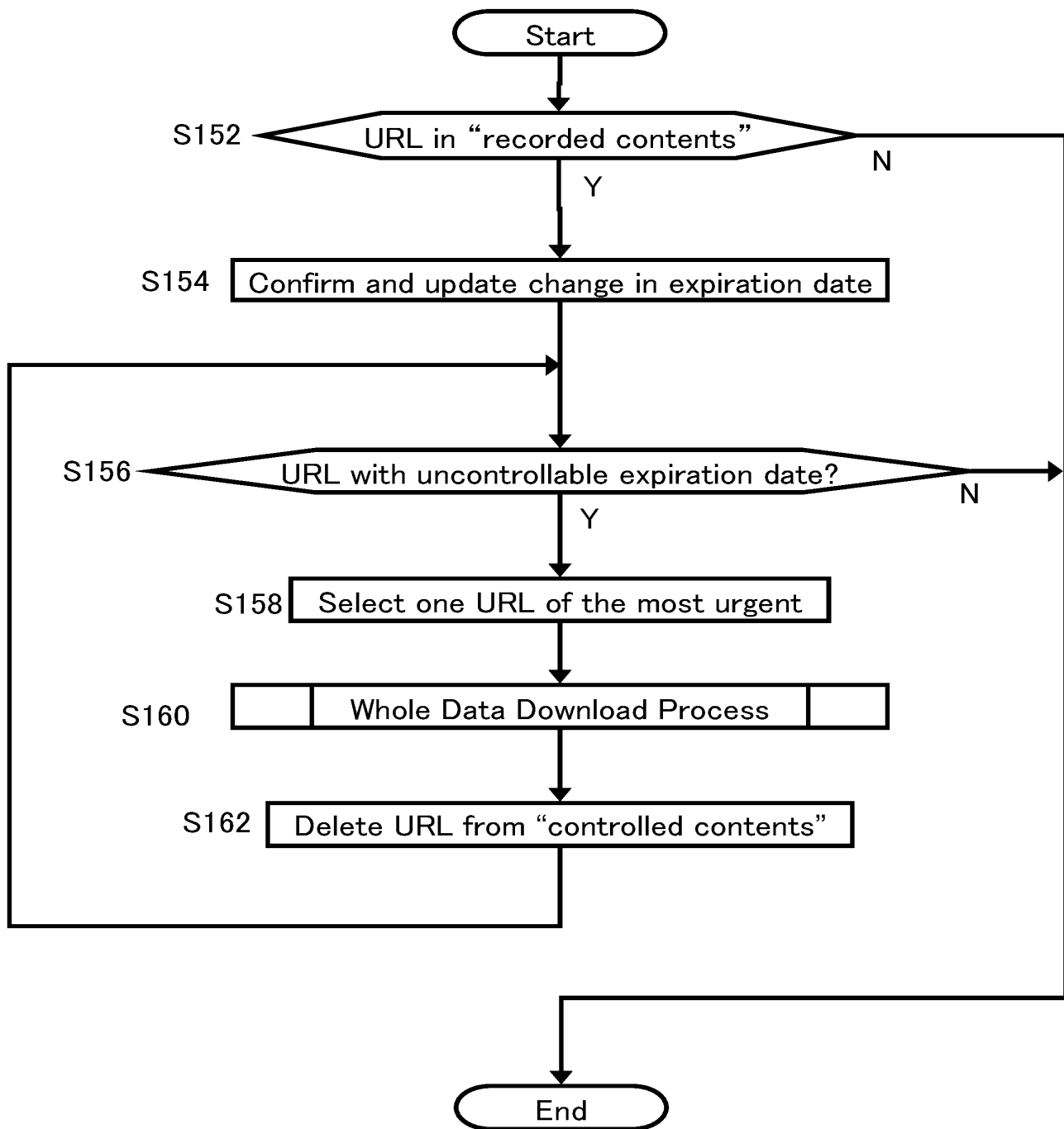


Fig. 7

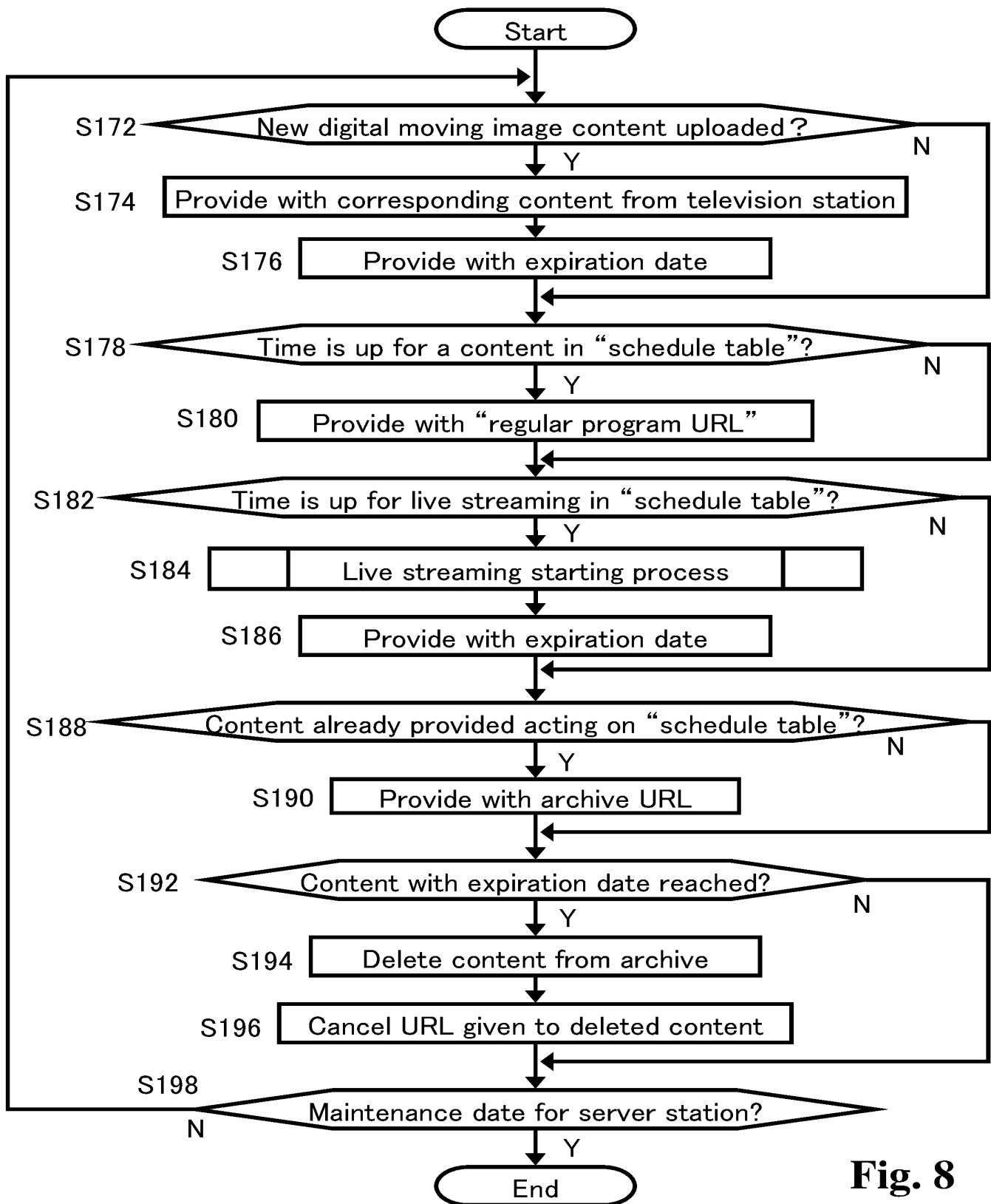


Fig. 8

What is claimed is:

1. A receiving apparatus configured to receive digital moving image contents from a provider of the digital moving image contents, the provider being commutatively connected to the receiving apparatus, the receiving apparatus comprising:

a processor executing instructions to designate a part of the digital moving image contents in the provider automatically or in response to a manual operation;

a memory that keeps information necessary for the processor to automatically designate a succeeding part of the digital moving image contents to a viewed part of the digital moving image contents;

a designation software controller configured to control the memory to keep the information in response to a termination of viewing the viewed part and control the processor to automatically designate the succeeding part of the digital moving image contents when the viewing starts again;

a receiver configured to receive the designated part of the digital moving image contents in response to the designation by the processor; and

a display configured to display the part of the digital moving image contents received by the receiver.

2. The receiving apparatus according to claim 1, wherein the processor is configured to designate the part of the digital moving image contents by selecting the provider, wherein the part of the digital moving image contents is provided by the selected provider.

3. The receiving apparatus according to claim 1, wherein the processor is configured to designate a part of the digital moving image contents provided by the provider by streaming technology in accordance with a program schedule table.

4. The receiving apparatus according to claim 1, wherein the processor is configured to designate an optional part of the digital moving image contents in response to the manual operation.

5. A receiving method configured to receive digital moving image contents from a provider of the digital moving image contents, the receiving method comprising:

a step of executing, by a computer processor, instructions to designate a part of the digital moving image contents in the provider automatically or in response to a manual operation;

a step of keeping information necessary for the executing step to automatically designate a succeeding part of the digital moving image contents to a viewed part of the digital moving image contents;

a step of controlling the keeping step to keep the information in response to a termination of viewing the viewed part and control the executing step to automatically designate the succeeding part of the digital moving image contents when the viewing starts again;

a step of receiving the designated part of the digital moving image contents in response to the designation by the executing step; and

a step of displaying the part of the digital moving image contents received by the receiving step.

6. The receiving method according to claim 5, wherein the executing step is configured to designate the part of the digital moving image contents by selecting the provider, wherein the part of the digital moving image contents is provided by the selected provider.

7. The receiving method according to claim 5, wherein the executing step is configured to designate a part of the digital moving image contents provided by the provider by streaming technology in accordance with a program schedule table.

8. The receiving method according to claim 5, wherein the receiving method is further configured to designate an optional part of the digital moving image contents in response to the manual operation.

9. A receiving system configured to receive digital moving image contents from a provider of the digital moving image contents, the provider being commutatively connected to the receiving system, the receiving system comprising:

a processor executing instructions to designate a part of the digital moving image contents from the provider automatically or in response to a manual operation;

a memory that keeps information necessary for the processor to automatically designate a succeeding part of the digital moving image contents to a viewed part of the digital moving image contents;

a designation software controller configured to control the memory to keep the information in response to a termination of viewing the viewed part and control the

processor to automatically designate a succeeding part of the digital moving image contents when the viewing starts again;

a receiver configured to receive the designated part of the digital moving image contents in response to the designation by the processor; and

a display configured to display the part of the digital moving image contents received by the receiver.

10. The receiving system according to claim 9, wherein the processor is configured to designate the part of the digital moving image contents by selecting the provider, wherein the part of the digital moving image contents is provided by the selected provider.

11. The receiving system according to claim 9, wherein the processor is configured to designate a part of the digital moving image contents provided by the provider by streaming technology in accordance with a program schedule table.

12. The receiving system according to claim 9, wherein the processor is configured to designate an optional part of the digital moving image contents in response to the manual operation.

ABSTRACT OF THE DISCLOSURE

A television set is capable of receiving both broadcast program from television station and corresponding digital file of the same contents from a server station through internet. The television set keeps information of time limit for the server station to surely provide the file. The television set automatically downloads the file when the time limit comes close or the time limit information is failed to be kept. The television set keeps URL for the moving image program enjoyed upon turning-off of the television set until the next turning-on for instantly enjoying the moving image content provided at the URL. User who turning-on the television set or changing the channel with any program not in mind to feel interest in the program on display by chance can enjoy the program from the beginning by means of downloading corresponding digital file of the same contents through internet by an automatic link.

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		A digital contents receiving apparatus		
First Named Inventor/Applicant Name:		MASAHIDE TANAKA		
Filer:		Masahide Tanaka		
Attorney Docket Number:		US8CA4		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	70	70
UTILITY SEARCH FEE	2111	1	300	300
UTILITY EXAMINATION FEE	2311	1	360	360
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				730

Electronic Acknowledgement Receipt	
EFS ID:	29614412
Application Number:	15633776
International Application Number:	
Confirmation Number:	5281
Title of Invention:	A digital contents receiving apparatus
First Named Inventor/Applicant Name:	MASAHIDE TANAKA
Customer Number:	67628
Filer:	Masahide Tanaka
Filer Authorized By:	
Attorney Docket Number:	US8CA4
Receipt Date:	27-JUN-2017
Filing Date:	
Time Stamp:	03:03:42
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$730
RAM confirmation Number	062717INTEFSW03071100
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	TransmittalUS8CA4.pdf	280502	no	2
			f99af260f3232a74f8375e573620bad408fbcf80		
Warnings:					
Information:					
2	Application Data Sheet	ADSaia0014US8CA4.pdf	1505619	no	7
			2568983957cc78b3269f20cd0f8a474cce06827b		
Warnings:					
Information:					
3	Oath or Declaration filed	DecAddAIA0008US8CA4.pdf	191976	no	3
			7bae920410996e3befa98e5dda4b00472d3b0a27		
Warnings:					
Information:					
4	Specification	US8CA4Specificaition.pdf	422929	no	33
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Warnings:					
Information:					
5	Drawings-only black and white line drawings	US8CA4Drawings.pdf	33583	no	8
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Warnings:					
Information:					
6	Claims	US8CA4claims.pdf	120480	no	4
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Warnings:					
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7	Abstract	US8CA4Abstract.pdf	17738	no	1
			ed37343895ae49d63e534b920823a61b22a69039		
Warnings:					
Information:					
8	Fee Worksheet (SB06)	fee-info.pdf	34921	no	2
			f71a02909d23ac25c7772f8ec562953db8b8efbd3		
Warnings:					
Information:					
Total Files Size (in bytes):			2607748		
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